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FOREWORD

BY

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Late Temporary Colonel A.M.S.

AN increased general interest in psychology and psychotherapy has been one of the minor consequences of the war. This is shown to some extent in the large output during recent months of books upon the psychogenic origin of neurasthenia and functional nervous disorder.

In the present work the author has stated the psychological factors underlying those forms of nervous reaction, which form the borderline disorders known as hysteria, neurasthenia, psychasthenia and the compulsion neuroses. He has not attempted to give a clinical picture of these reactions, but more especially his object has been to indicate the psychological mechanism of their causation and the principles concerned in their treatment by psychotherapy.

Dr. Brown has brought to his task a well-equipped mind, and his book is the outcome of a large practical experience obtained both during the war and subsequently. He has had the rare opportunity of being able to study the psychoneuroses of war, first as a

medical officer treating acute cases of the neuroses in their early stages in an advanced Neurological Centre and later in their chronic and more persistent phases in the special Neurological Hospitals at home.

Since the war a tendency towards a cleavage between functional and organic diseases of the nervous system has shown itself, with the result that the treatment of the former is passing into the hands of a specialized class of practitioner. The essentials to success in psychotherapy do not differ from those relating to other branches of medicine. These entail a sound knowledge of general medicine and more particularly of neurology and psychiatry. Psychotherapeutic treatment should invariably be preceded by a clinical examination of the physical state before a psychological investigation of the mental symptoms is made.

Psychotherapy, as now understood, has found its place amongst the recognized measures of treatment, and the reader of Dr. Brown's book will find the principles on which it is based clearly stated and discussed.

W. A. T.

AUTHOR'S PREFACE

IN this little book an attempt has been made to show the psychological principles underlying the modern theory and practice of psychotherapy. Opportunity has not arisen for dealing with the neurological aspects of the subject, but the author is in agreement with Dr. Aldren Turner in holding that a sound knowledge of general medicine, and more particularly of neurology and psychiatry, is important for completely satisfactory work in this domain. In devoting so much space to a consideration of the doctrine of psycho-analysis, the author is actuated by the desire to render to Freud the things that are Freud's, but he is far from being able to accept Freud's views in their entirety. The position taken up in the text is based upon the results of psycho-analyses which he has carried out on a large number of patients during the past eight years with the express purpose of testing the theory. On the other hand, the *method* of psycho-analysis ("free" association) is, in his opinion, of the utmost value in psychotherapy.

The author desires to express his thanks to the Editors of the *British Medical Journal*, *Lancet*, *British Journal of Psychology* (General and Medical

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Sections), *Sociological Review*, and *Journal of Neurology and Psychopathology*, for allowing him to reproduce long extracts from articles contributed by him to these periodicals. His thanks are also due to the Editor and Publisher of *King's College Lectures on Immortality* for their permission to reproduce a portion of one of the chapters in that publication, and to Mr. R. J. Bartlett, who made the index.

W. B.

13, WELBECK STREET, W. 1.

December, 1920.

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PSYCHOLOGY AND PSYCHOTHERAPY

PART I -INTRODUCTORY

CHAPTER I

PSYCHO-PATHOLOGY AND DISSOCIATION

PSYCHO-PATHOLOGY is the science of the morbid or pathological working of the mind. Psychology considers the laws of working of the normal mind, the mind that is in adequate adaptation to its environment, physical and mental. Psycho-pathology considers the laws of working of the mind that is out of harmony with its environment because of some degenerative process.

The difficulty is to find one guiding idea to carry us along in this very complicated subject. The hint comes from normal psychology. Not many years ago our own British psychologists developed a system of association psychology, explaining the mind in terms of association of ideas—that is, regarding the mind as something gradually built up on the basis of what is given through impressions from without and of what is inherited within. So in psycho-pathology we might begin our discussion by considering facts of *dissociation*—indeed, that is the word to conjure with in our subject—dissociation, splitting up of the mind, the antithesis of association. We shall take as examples of patho-

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logical states the so-called borderline cases—hysteria, neurasthenia, psychasthenia, and compulsion neurosis. If we go beyond these we come to what are called the psychoses, which are recognized forms of insanity. Much the same kind of explanation will cover all types of mental disease, but the attempt to produce a satisfactory science of mental dissociation was begun within the domain of borderline cases, otherwise known as the psycho-neuroses. These diseases may also be called functional nervous diseases. In them there is no demonstrable lesion of the nervous system. The nervous system is apparently intact, but is functioning wrongly or inadequately.

We shall base our introductory remarks upon the case of hysteria, because it illustrates most clearly the psychological mechanisms at work.

I. HYSTERIA AND DISSOCIATION.

In hysteria we have very obviously a case of dissociation; certain parts of the mind, certain sensations, certain powers of movement, certain memories, are lost to the main consciousness, but still exist somewhere or other, in some form or other, and can be restored under appropriate conditions. The anæsthesias that hysterical patients suffer from are a good instance of the kind of dissociation that occurs. A hysterical patient may suffer from anæsthesia of the hand, or of the hand and lower arm, or of the hand and arm up to the shoulder, ending in a straight line round the shoulder, or, again, from hemianæsthesia extending down the right or left side of the body and ending accurately in the middle line. Many other forms of anæsthesia are possible. All these types correspond in their

extent to ordinary, uneducated concepts of the divisions of the body; for example, the hand, in ordinary unscientific thought, is considered as one entity, the whole arm is considered as an entity, ending in a straight line round the shoulder. This holds good even for purposes of tactile association, but from anatomy we know that the nerves supply irregular areas, consisting, for example, of a strip down the forearm, extending towards the fingers of the hand, so that, if there were an organic disturbance of a cutaneous nerve, we would find an irregular area of anæsthesia—the more irregular the smaller the number of nerves affected—we would not find an area of anæsthesia corresponding to the hand or the arm. Pierre Janet emphasized these distinctions between what are called functional anæsthesias and organic anæsthesias, and pointed out that the anæsthesia illustrates the state of mind of the hysteric, who has lost the power of holding together in one unity all the sensations from the different parts of his body. A patient may receive a blow on the arm, causing a mental shock, as a result of which his whole arm may become anæsthetic, and the anæsthetic area may end in a straight line round the shoulder-joint. That area does not correspond to the distribution of any set of nerve-fibres, but it does correspond with the patient's own conception of his cutaneous sensibility. Moreover, it can be proved indirectly that the sensations in this part of the body still exist. Sometimes we can do this by a trick, as Janet pointed out: We can ask the patient to say "yes" when he feels a pin-prick, "no" when he does not. We get him to close his eyes, and then silently explore different parts of his body. Whenever he is pricked on the

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normal part of the skin he will say "yes." When he is pricked on the so-called anæsthetic area of the skin he will often say "no," whereas if the area were really anæsthetic he would not know that it had been touched at all. Yet he is probably quite genuine in his belief that he has not felt the pin-prick—though of course we must be certain that he is not malingering. It is very important in considering hysteria to be familiar with the various types of malingering. Cases like this, of anæsthesia combined with functional paralysis of the arm, occurred frequently during the late war.

I have dwelt on hysterical anæsthesia, not because it is very important, but because it well illustrates this theory of functional dissociation. There is dissociated from the entire mind one psycho-physical power, in this particular case cutaneous sensitivity—the power of reacting consciously to stimuli presented to some part of the body. Again, the patient may have loss of motor power: he may be suffering from loss of power in the legs—cannot stand or walk; yet if we investigate his nervous system we may find that it is perfectly normal. Nevertheless, there is loss of sensory power, or loss of motor power, and also, very frequently, a greater or less degree of amnesia, or loss of memory. To sum up the state of mind of the hysterical individual we may say that it is a state of mental dissociation—dissociation of certain psycho-physical functions from the main personality. Yet these dissociated functions remain, and under appropriate conditions can be recovered—for example, under hypnosis. Hysterical patients are easily hypnotized; in fact, Charcot and Janet hold that any person who is easily hypnotizable is *ipso facto* hysterical, and that, if an ordinary person be

hypnotized, he is made hysterical by dissociating his mind—a form of dissociation has been started. With this view I agree.

II. HYPNOTISM AND HYSTERIA.

It is worth while considering this matter a little further. To hypnotize a person we get him to fix a bright object with his eyes, to relax his muscles, and to give his mind up to sleep—to turn his mind away from everything active. We continue to talk to him all the time, telling him to think of sleep, and saying that his eyelids will begin to get heavy, that he will lose feeling in his limbs, and that he will gradually become more and more drowsy. After he has fixed the bright object for a short time and his expectation of sleep has been encouraged in this way and his thoughts fixed on sleep, which (though we have as yet no satisfactory theory of sleep) may be provisionally said to be a quieting down of the mental powers, he will appear to lose consciousness. But there is one power of the mind that is not quieted down, and that is the power of hearing the physician's voice. The physician is talking almost the whole time, and whenever he speaks the patient, until he gets very deeply hypnotized, can respond. Thus we produce dissociation of the power of hearing a particular kind of sound from the rest of the mind. The rest of the mind is lulled to sleep; it is a case of partial sleep. But more than that, there is an emotional element at work. A patient cannot be hypnotized by a gramophone, unless he has been hypnotized before and has an extreme tendency to yield to this kind of suggestion. The patient has to feel an interest in the physician, either of fear or of confidence.

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Those are the two forms of mental reaction. Different people hypnotize in different ways ; some have a tendency to hypnotize through fear, others through arousing confidence—one might even say affection—in the patient. There is always an emotional element involved. We shall have later to consider a theory that makes a great deal of this emotional element. In the case of a normal person such an emotional appeal must be very strong ; in the case of a hysterical person it need not be so strong, because the patient already shows a tendency towards dissociation ; the hypnotic effects appear more readily. Charcot considered the hypnotic state a form of artificially induced hysteria. Janet agreed with him, and so do I, though many people think that, because almost every one can be hypnotized to some degree, this theory must be wrong. But there is a tendency to mental dissociation in all of us, based on emotional conflicts. No one is a complete mental unity.

Finally, as an example of a hysterical patient, let me take the condition of almost any bad case of shell shock on the Western front, or any of the other fronts, during the past five years—any of the cases as they reached the casualty clearing station. The patient's condition was always that of dissociation. All the hysterical cases agree in showing loss of memory of greater or less extent. They may have forgotten everything that has happened since the shell burst, and they will exhibit other losses of function, greater or less, according to circumstances. They may show loss of voice, of powers of walking, of powers of hearing, of the power of voluntary control. I would emphasize their loss of memory. It will be found that such a patient is very easily hypnotized ; if it be suggested to him that he will

remember the circumstances of his injury with hallucinatory vividness, he will act again the whole circumstances, and in that process his various dissociated functions will return. If he has been dumb, he will now speak, without the necessity of suggesting this. If he has been paralyzed, movement will occur in his limbs. I do not say that he will at once be able to take up his bed and walk, but his limbs will move about, showing that there is power in them, and that the power is linked up with the lost memory. What has been done here? We have re-associated him by bringing up these lost memories. With the memories we have brought up the lost functions. But we have done more than that, we have given him an outlet for an emotion which was originally experienced by him with too great intensity—with so great an intensity that he could not keep it consciously within bounds, and his mind split in the attempt. The way in which these patients live again through their experiences shows what terrible sensations they must have had. They roll about, gripping at the sides of the stretcher, or rolling on the floor, tearing at their hair with their hands, contorting themselves in every possible way, foaming at the mouth, becoming purple in the face, their eyes starting out of their heads, all their muscles tense. While under shell fire the conscious personality was trying to suppress the emotion of fear, partly from a sense of duty—the duty of a soldier—partly in self-defence—anything to get away from it. There occurs a mental conflict—an attempt to get rid of the painful emotion. The attempt succeeds at the expense of the mental machinery; clouding of consciousness supervenes, the patient goes into a state of stupor, where he is not completely

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unconscious, but where he is dazed. He gradually recovers from this, but has no memory of it later. We see here the mechanism at work explaining the dissociation. The dissociation is obviously a fact, but it is not an ultimate fact. There is a cause for it, and that cause is mental conflict, an attempt at repression, an attempt which has succeeded to a certain extent, but only at the cost of the production of a pathological symptom or set of symptoms. In curing the patient we bring up the repressed experience once more, we encourage him to work off the emotion involved in it. Just as a person who grieves for some one he has lost finds relief in tears, so we let these patients work off their fear. Thus we are concerned not only with the linking up of the dissociation, but also with the working off of fear, of a certain amount of emotional energy that has, metaphorically speaking, been bottled up in the patient. In this way the repression is overcome and the mental energy (repressing force) becomes again available for general use.

III. PSYCHO-CATHARSIS OR ABREACTION.

This illustrates the advance that Joseph Breuer and Sigmund Freud made on Janet in explaining hysteria. Janet explains hysteria simply in terms of dissociation. He says that the patient suffers from weakness of mental synthesis. He compares the hysteric to an old lady who has gone shopping and has made too many purchases. She comes back with her arms laden with parcels. Some of these fall to the ground; she stoops to pick them up, and others fall. So, he says, is it with the hysteric after a shock. He loses the power of holding all his psycho-physical functions simultaneously in

his mind so that some of them are lost, and he suffers from an anæsthesia and paraplegia. If you cure him of this by suggestion, later on he will, perhaps, as the result of some slight shock, show some other functional symptom—he may lose his voice or his hearing. Some other hysterical symptom will take the place of the original one unless he is cured of his general mental state. But Janet did not undertake to explain why the dissociation took place. Breuer and Freud found, after an investigation of some hysterical cases under hypnosis, that there was very frequently loss of memory, that such memories were always of an emotional character, and that the symptoms disappeared if the memories were brought to the surface of the mind with their original vividness. They published their first article on the mechanism of hysteria in illustration of this process—this effect of repression of painful emotional experience: loss of memory and dissociation, and the recovery of these by means of hypnosis and the dissipation of the symptoms themselves through encouraging the patient to live through the emotion again. This living again through the emotion and working it off was called “ab-reaction,” or “psycho-catharsis.” At this early stage of his theory, then, in which he was associated with Breuer, Freud regarded dissociation as due to a preliminary mental conflict and a repression of one of the conflicting mental tendencies. Later on he developed this view further, independently of Breuer. He found that in the cases of the dreams of normal persons there was also evidence of mental repression, and of the production of mental symptoms as a result of the repression. His view of the dreams of normal persons was, and is, that they correspond

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exactly with the symptoms of the hysteric, that they are "disguised fulfilments of repressed wishes," to use his own words. We shall consider this theory more fully in Chapters III and IV. Later on he found, after analysing a number of his own cases, that the emotional tendencies which were repressed were all of a sexual nature, and so he enunciated his dictum that no neurosis is possible in a normal sexual life, and that, if a patient is suffering from neurosis, there must have been some disturbance in his sexual life.

IV. SEXUAL THEORY OF FREUD.

That is the extreme form of the Freudian theory, which I do not accept, though the Freudian school make it an essential part of their doctrine. Freud thinks that we can find evidence of sexuality in the early years of childhood—namely, feelings of attraction of the boy towards his mother and of the girl towards her father, combined with hatred and jealousy felt towards the parent of the same sex—and that these feelings are shortly afterwards repressed. A mental conflict takes place in the child's mind, and sexual repression occurs, partly through the further normal development of the child's mind—other interests arise and crowd out these feelings—partly through the fact of development of feelings of sympathy and of morality, and these repressed tendencies only form a complicating factor if shocks occur later in the child's life.

I have already referred to the production of hysterical symptoms as being due to an emotional shock. That seems to be the general rule—an emotional shock will produce hysteria in persons whose inherited make-up is suited for it. The

hysteric is born, not made, but the hysterical symptom is originated through some emotional shock. Freud considered that these emotional shocks were repressed and dissociated from the mind, and continued to act as a foreign body in consequence, but that these repressed memories could be brought to the surface either by hypnotism or by his method of psycho-analysis. In his earlier work he thought that he could prove in every case the actual occurrence of a shock in early childhood of a sexual nature. Later on, however, he discovered that some of the memories brought up by these methods were false memories—that the patient had imagined them—but this did not alter his theory very much. He said that the fact that the patient had the power of imagining such events showed that there was maldevelopment of the sexual life at that time, so that he then explained the neurosis in terms of the process of development of the psycho-sexual life of the child.

There is in his view a form of infantile sexuality consisting of sexual processes concerned with the feeling of pleasure produced by sucking, pleasure in connection with the excretions, as well as pleasure arising from the infliction of pain (sadism) and the suffering of pain (masochism), pleasure in exhibition, etc.

Such tendencies as these sometimes appear unchanged, or even exaggerated, in adults, and are known to medical science as perversions. These partial processes undergo certain degrees of repression or transformation, especially between the ages of five and thirteen or fourteen, and what is left converges towards the production of the normal sexual instinct and life of the adult.

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His theory of functional nervous disease is that it is the outcome and sign of maldevelopment of the sex-instinct. These partial processes have either been repressed too intensely, or their mutual relations have taken an abnormal course. Some have persisted when they should have been outgrown, etc.

The hysteric suffers from repression of perverted sexuality. If the repression had not occurred, the patient would have shown, not a normal, but a perverted sexual life. He is incapable of a normal sexual life, because the kind he would show would be out of harmony with his own character and his social environment. The patient realizes that a seemingly insoluble mental conflict is going on inside him, but by the psycho-analysis he is enabled to "sublimate" it—that is, to direct the impulse along other channels. This opens up a path along which solution of the conflict may take place, the impulse can find its fulfilment in another way. Energy is put at the disposal of the patient, and he directs it towards other ends.

We have, then, already moved far away from the conception of catharsis, and we find a change in the psychological dynamics involved. Whereas Breuer spoke of *emotion* as something that could be worked out, now Freud speaks of *libido*, something perhaps physical rather than mental, which can be shifted from one idea to another, and which, when dammed up, may produce either physical or mental symptoms.

If the repressed libido fails to find an outlet in physical symptoms—the paralyses, contractures, anæsthesias, etc., of so-called conversion hysteria—it appears in consciousness as an *anxiety state*. In

other words, repressed emotion appears in consciousness as anxiety.

To be a thoroughgoing Freudian one must be able to accept this theory, and for many of us it is because we cannot fully subscribe to it that we should not call ourselves Freudians.

V. THEORY OF JUNG.

C. G. Jung of Zürich was one of Freud's most brilliant pupils, and at first an enthusiastic supporter of his views. Later, however, Jung's researches led him to believe that these earlier emotional memories of the child were not an essential factor in the production of neurosis, but that the principal factor was the present condition of the patient. When a patient falls ill of a psycho-neurosis it is because he is not adequately adapted to his present social and physical environment. Life is too great a task for him ; he cannot hold his own ; he has not sufficient courage to face facts, with the result that, if he is of a hysterical temperament, his mind turns back to childhood's memories and to more childish modes of conscious activity. What Jung calls "regression" takes place. The mental energy of the individual, which Jung has rather unfortunately called the *libido* (corresponding very closely to Bergson's *élan vital*), is reflected back, and revives earlier memories of childhood, not only memories of actual occurrences in childhood, but also early phantasies. These phantasies may be of a sexual nature or they may not. The libido in that way becomes linked up with earlier memories or phantasies, and is no longer of use to the individual in his present mental situation—thus he becomes still less competent to deal with his environment.

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But Jung would use the same method that Freud uses in treating the patient—the method of psycho-analysis, because, he says, we want to get back these earlier memories for the sake of the libido that is linked up with them. Psycho-analysis is simply the method of free association. If the patient is suffering from some hysterical symptom you get him to let his mind pass into a passive state—to recline on a couch, say, with his eyes closed—and passively follow up the sequence of ideas as they occur to him one after another, without any prompting. He begins, say, to think of the time when the symptom first developed, and then just watches his mind drift as it will—gets into a state of meditation—and tells the doctor from moment to moment what he is thinking about without reservation or criticism. His thinking seems to be undirected, to be just determined by free association. The result is that more and more ideas and memories from the past come to his mind, and perhaps eventually memories that are of great significance for his symptom. This occurs because the method is not really a method of free association at all. The series of ideas is, it is true, not determined by conscious mental process; it is determined by unconscious mental process. By letting the conscious selective activity fall into abeyance, trends of unconscious mental activity come nearer to the surface of the mind and guide the ideas, and these belong to the same world as those mental tendencies which are at the basis of the hysterical symptom.

The difference between Freud and Jung, then, is, that Freud says that earlier memories and earlier imaginations are directly responsible for the hysterical symptom; Jung says that failure of adaptation at

the present moment causes a regression or reflection of mental energy back to the past, and that this revives earlier imaginations and memories and so produces the hysterical symptom. Both agree in adopting the method of psycho-analysis, which proceeds to recall these earlier memories and phantasies.

These, briefly, seem to be the fundamental ideas of Freud and Jung on hysteria, as contrasted with the ideas of Janet. They go a step further to the cause of the dissociation—that is, mental conflict and repression. Link up this dissociation and remove this repression and the patient is cured.

VI. HYPNOTISM AND PSYCHO-ANALYSIS.

Freud, who originally used hypnosis, gave it up, partly because he found that he could only hypnotize about one-third of his patients, whereas psycho-analysis, though it took much longer, could be applied to every case, and produced eventually much the same results. His second objection to hypnotism was that certain resistances are overcome by the recall of particular memories, but in this process the resistance in other directions is increased, so that the mind is limited rather than expanded. He also suggested the germs of the theory that Ferenczi worked out in detail afterwards—namely, that in hypnosis there is really a transference of emotional feeling, of the early sexual feelings of childhood, to the person of the physician. Ferenczi points to the fact that there are two main methods of hypnotizing: the method of command, corresponding to the paternal method with the child, and the method of coaxing and soothing, which

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corresponds to the attitude the mother adopts towards the child. He then argues that in both types of hypnosis there is a revival in the patient's mind of his early modes of response. When a patient is hypnotized he responds to the physician just as he responded to his father or his mother in early years—that is, by a reaction that is of a sexual nature—hence the patient's early sexual feelings are fixed on the physician. What has thus really been done is to replace one set of symptoms by another. Hysterical symptoms, like loss of the power of walking or loss of voice, may thus be got rid of, but in the place of these the psycho-sexual dependence of the patient upon oneself has been produced, and this also is bad. What evidence has Ferenczi for this view? He says that it is taken from actual experience of patients whom he originally treated by hypnotism, but later on psycho-analysed. He found evidence of such transference of feeling in them.

These, then, are Freud's three objections to the method of hypnotism: (1) Failure of the method in certain cases. (2) Its tendency to produce other symptoms in place of those of which the patient is cured. (3) Fear of the transference of sexual feeling to the person of the physician.¹

With regard to the last objection we might urge that Ferenczi's theory is a *petitio principii*; the patient may respond to the physician as he did to his father or his mother in childhood, not necessarily, however, because of sexual feelings, but perhaps

¹ But all Freudians regard such "transference" as an essential stage in the process of cure, and expect to produce it, in every case, in the course of psycho-analysis. They subsequently "resolve" the transference by further analysis.

simply because at that time he was more suggestible than in later life. A young child has only a few facts in his mind, and if any suggestion is made to him he tends to believe it unquestioningly. He comes into the world with a tendency to what is called "primitive credulity"—a very important attribute. Most of what he learns in early life is learnt through suggestion, not by means of logical reasoning. We like to encourage a child to reason, but if we made it think out everything for itself we should only confuse it and hamper its development, instead of forwarding it. And if that is true of the intellectual side of the child's life, it is much more true of the moral side. We can explain the child's response simply in terms of greater suggestibility. We get our patient into a state in which he is willing to accept the suggestions that are made to him in the same way as he accepted them in his early childhood.

The hypnotic method of analysis is much quicker than that of psycho-analysis, and can produce equally satisfactory results in simple cases. I will give two illustrations.

VII. ILLUSTRATIVE CASES OF HYPNOTIC ANALYSIS.

One is that of a signaller in the Flying Corps who was blown up by an aeroplane bomb whilst taking refuge in a disused trench in France. He became unconscious, and on coming to he found that the trench seemed to be turned round at right angles to the position in which he had expected it to be. When he arrived at the barracks the same thing had occurred—everything seemed to be twisted at right angles to its ordinary position. This feeling of disorientation, as we may call it, persisted for many

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months. When he came home to England it still showed itself in the following ways: When walking along a street which bent roughly in the form of a semicircle, thus \cap , he would have the irresistible feeling that he had been walking like this \sqcap . If he were riding on the top of a bus, and the bus turned at a right angle, he would have the feeling that he was continuing to go in a straight line, although he knew that the bus had turned a corner. He would think that the whole room he was in, everything, had twisted round through a right angle. I hypnotized this patient and put him through his experiences again, with the result that the occasions on which he got this feeling of disorientation became roughly about half as frequent as before, but the disorientation continued to occur from time to time. He was better, but by no means cured. A few days later he came to tell me that his mother had informed him that at the age of six, as the result of a fall, he had shown much the same symptom; while crossing the Tower Bridge one day he had told her that the bridge was turned "the other way round." I hypnotized him, and put him through this experience again. He lived it through with much vividness. He is sitting on a wooden horse (white with red stripes) in the dining-room. His aunt comes into the room and wishes to wash him; he declines, and edges away from her; the horse tips up on the edge of the hearthrug, and he falls on to the fender. He knows no more until he wakes up and finds himself in bed, with his aunt bathing his face. He continues to recall his experiences, and remembers crossing the Tower Bridge and finding it turned at right angles. After recalling this incident the patient was much better, but a few days later he

went to the theatre to see *Going Up* (it is true that there is an aeroplane in *Going Up*), and he suddenly found that the theatre was the wrong way round. He went home, and in the middle of the night he woke up with the feeling of disorientation, got out of bed, and went towards what he thought was the window, and put his hand through the looking-glass. Thus he was by no means cured. I pointed out that there must be some memory in the first six years of his life which was the cause of the trouble. He tried to recall it, but did not make much progress. I then put him through his fourth birthday under hypnosis, and he remembered a frightening dream in which he had thought that there was an animal under the table. He had crawled downstairs and waked up halfway down. The next morning he had thought that the pier was the wrong way round, and had told his mother so. I interpreted his dream for him while he was in the hypnotic trance. He had seen the Giant Ape in a glass case at the Natural History Museum, South Kensington. This had frightened him, and it was this creature which he had thought was under the table in his dream. I took the precaution to get another doctor (Captain P. A. Galpin, R.A.M.C.) to come and see me hypnotize this patient the next time. I then suggested to him that he would go through his first experience of disorientation. When I put my hand on his forehead he shouted out, "Hot coffee!" It appeared that when a child of nearly three he had gone into the kitchen one morning, and had pulled the coffee-pot, which was on the table, towards him by pulling at the tablecloth. The coffee upset and poured down his right arm. He felt it as a pain in his left side, over his heart. He knew no more until

he woke up in bed, when he saw his father come into the room, and he felt the bed to be the wrong way round. That was his first experience of disorientation—the first he could remember. It occurred to me, as a possible explanation of the dissociation, that the scalding of his arm produced a fainting fit, in which he fell to the left and everything twisted round to the right—he fell through a right angle. That was the beginning of his disorientation.

To make quite sure of this I hypnotized him again to bring up an earlier memory still. I suggested to him that he would remember his second birthday. He suddenly began to shout out: "He has bit me—Gordon has bit me!" Before I woke him up, I asked him all about it, but he could not tell me very much whilst in the hypnotic state—he had gone back to a period when he was too young to be able to describe his experiences. I told him that he would continue to remember all that he had just gone through, and I then woke him up. He told me that Gordon was not a dog, but a little cousin of his. They had been in bed together, standing up in bed, and it appears that he had punched Gordon in the face, and that Gordon had retaliated by biting him in the left arm. He could remember that at that time he was living near a fire station—could remember all the details of the incident, and could remember definitely that he had had no feeling of disorientation. The revival of this incident brought no memory of any earlier disorientation. The next day after this treatment he felt more disorientated than ever, for he had been going through these experiences very vividly. I let him stay in bed, and after two days he recovered completely, and very soon applied for his discharge. I let him

go, but asked him to write to me if the feeling of disorientation ever recurred. I have never heard of him since.

This case seems to me to show that such memories date from very early life, and more than that, it shows that the memories need not always be of a sexual nature, because at the age of two even Freud would admit that there can be very little sex, and it is very difficult to see where the sexual experience could come in in such a case.

The other case is a much simpler one, but it is what I would call a crucial case of the value of abreaction, or the removal of repression and the working off of emotion under hypnosis. It is the case of a gunner who was admitted to the hospital where I was working, after he had spent two years in military hospitals of different kinds. He was suffering from a tremor of the right hand, dating from the time when he had been blown up at Ypres. He did not remember anything more until he reached hospital, and the memory of this interval had never been recalled to him by any of the doctors he had previously seen. I sent him to sleep—that took just about three seconds—and then suggested to him that he should live again through the experience of Ypres. He did so, and began to shout out all sorts of things which showed what had happened at the time. German shells were falling nearer and nearer to the gun-pit. He was apparently serving the gun, and some one else was handing him ammunition, and this person had evidently lost his head, for my patient shouted out: “What the —— do you mean by pulling the —— pin out of that —— fuse?” Then I noticed that he was moving the handle¹ with his right hand; his hand

¹ To serve the gun.

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began to shake violently, and soon he was shaking all over, but especially in his right hand. Then he suddenly became absolutely still. I suggested to him that he would continue to remember all that he had just gone through and then woke him up. He looked at his hand, which was absolutely still, with amazement, and expressed his gratitude, but his mind still appeared somewhat confused, so I told him to go and sleep it off. An hour later he came back and told me that he had not been to sleep, but that he had been thinking it all over. He knew everything that had happened, and told me that he had not been suffering from shell shock, but from gun shock. His gun had been blown up, and the emotion which this experience had excited in him had been bottled up for two years, with the result that he had suffered from this tremor in his hand. The next morning he was able to shave himself with an ordinary razor, for the first time since his illness.

Now, was this working off of the emotion the cause of the recovery? The alternative explanation is that the recovery is due to suggestion. When this man came to me, however, he certainly did not expect me to cure him. I saw him the first day that he came to the ward and treated him at once, and he was not likely to have more confidence in me than in any one else who had treated him. As regards the hypnosis, he went off straight away without realizing that he was being hypnotized—it was not that that impressed him. As far as one can make out there was no expectation worked up—it was simply the working off of the emotion that reassociated his mind and cured him. That is why I call this a crucial case. In many other cases it may be argued

that the cure is the result of suggestion—for example, in the case of the disorientated man—but this case of the gunner was not of that sort. I do not for a moment wish to deny the working of suggestion in curing such cases, but I wish to emphasize the curative effect of the working off of emotion as a fundamental factor. It is a more causative treatment than suggestion. Suggestion removes the symptom; abreaction removes the cause of the symptom. We shall find this illustrated again and again in cases quoted later on.

Abreaction of repressed emotion sweeps away the repression, and so frees energy which had been previously needed to hold the repressed memories apart from the rest of the mind and away from clear consciousness. This freed energy is thus put once more at the general disposal of the personality. The previous “fixation” of this repressing energy and its deviation from the common fund of energy of the personality probably explains, to some extent, the feeling of fatigue that generally accompanies a psycho-neurosis.

CHAPTER II

DEGREES OF DISSOCIATION. MULTIPLE PERSONALITY

I. PSYCHASTHENIA AND HYSTERIA.

WE have seen that Pierre Janet's general psychological theory is that the personality is a synthesis of mental elements, and that disease of the personality is an interference with this synthesis. The disease or derangement may take one or other of two general forms. There may be, on the one hand, a widespread weakening of the synthesis, which alters the individual's idea of his own personality. This is *psychasthenia*. While the simpler activities of the personality, such as perception and memory, are unimpaired, the individual's judgments on these activities, recognition, reflective thought and volition, may be seriously affected. The psychasthenic says: "It is not I who feel, it is not I who eat, it is not I who speak, it is not I who suffer, it is not I who sleep; I am dead, and it is not I who see clearly," etc. Janet writes: "This incomplete character of the disturbances of the personality is found in all the accidents of these psychasthenic patients; they have obsessions, but are not completely insane, and always recognize the absurdity of their obsessing ideas; they have impulses, but do not carry them out; they have phobias concerning acts, but never real inability to perform acts,

or real paralyses ; they have interminable doubts, but no true amnesias. It is the striking trait of their character that they never have any symptom in its completeness, and this incomplete character of the disturbances of their personality falls within a general law.”¹ On the other hand, these symptoms may be carried to their completeness, the synthesis of the personality may be not merely weakened but actually destroyed for certain of the mental elements. This is *hysteria*. Sensation from certain areas of the skin, power over certain voluntary muscles, memory for certain ideas or for a certain period of the individual’s life, may be completely lost to the personality itself, although by indirect methods they may be proved still to exist.

II. SUBCONSCIOUS, CO-CONSCIOUS, SUBLIMINAL.

Ideas like these, which can be shown to exist in independence of the main personality and contemporaneously with it, were called by Janet “sub-conscious,” and this is the original meaning of the much misused term “subconsciousness” in the literature of the subject. It would perhaps be less ambiguous and therefore better to call such ideas “co-conscious,” as Morton Prince has suggested, but if the original term is preserved at all it should always be used in its original sense. There are, of course, other senses in which the word has been employed, the most extreme being that in which it is identical with the “subliminal self” of F. W. H.

¹ “A Symposium on the Subconscious,” iv, by Pierre Janet. *Journal of Abnormal Psychology*, vol. ii, 1907-8, p. 60.

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Myers. As every one knows, Myers regarded the normal waking consciousness with its memories as but a small fraction of the entire personality. Below the threshold of consciousness and the activities of everyday life is a much larger portion, the subliminal self, which comprises aspects of the personality undeveloped in this mundane life, though conceivably capable of development under other conditions of existence. This subliminal portion is separated from the supraliminal self (the everyday self) by a semi-permeable "psychical diaphragm," through which ideas and mental powers may pass in either direction. In the anæsthesias and paralyses of hysteria the sensations and powers fall from the supraliminal into the subliminal, while in the inspirations of genius and other super-normal activities of the soul there is a "subliminal uprush of faculty" into the supraliminal. Through the subliminal we may come into closer mental relations with one another and with the spiritual universe. This theory has been subjected to much criticism at the hands of psychologists. Its main weakness is that it furnishes an over-elaborate explanation of the well-attested facts of abnormal, i.e. supernormal and subnormal, psychology, while allowing undue weight to the less certain and inadequately verified facts of telepathy, mediumships, and spirit apparitions. The prefix sub- in "subliminal" is unfortunate, since there is nothing essentially inferior about it. A more non-committal term is the "unconscious," which is coming into favour at the present day, especially through the influence of Freud. Memories, impulses, and motives when not actually before the mind, i.e. conscious, may still retain all their other mental characteristics, and from their

place outside of consciousness may continue to exert influences upon consciousness. They form part of the unconscious, but are still psychical in nature. It is not a contradiction in terms to speak of "unconscious psychical processes," unless we identify the psychical with the conscious, for which there is really no justification. Of course there is the alternative view that these processes, when out of consciousness, are merely physiological changes in the brain. Apart from the metaphysical difficulties involved in such a view, difficulties which we cannot go into here, there are scientific reasons which make it more satisfactory to think of the unconscious in mental rather than in physical terms, in most cases. It need hardly be added that these unconscious mental processes have in all probability their own physiological correlates or counterparts in the workings of the brain, but our knowledge of the nature of these brain changes must be even more speculative than that of the unconscious processes themselves.

III. MULTIPLE PERSONALITY.

In extreme cases of hysteria, loss of memory and disintegration of personality may go so far as to produce either an alternation or a doubling of personality. Instances of this are a matter of common knowledge, and do not need detailed explanation and illustration here. Suffice it to say that they show all degrees of mental disaggregation, from mere alternation of mood and conflict of motive compatible with mental health to extreme cases where two souls seem to share the tenancy of one body. The best known recent

example of the latter case is that of Miss Beauchamp, which Morton Prince has described with such a wealth of detail in his book *The Dissociation of a Personality*. This individual was at a certain stage of her life possessed of three distinct personalities or centres of consciousness. Two of these alternated with one another, each retaining her own series of memories, but amnesic for the experiences of the other, while the third, the now notorious "Sally Beauchamp," not only had a separate consciousness of her own, with a cheerful and irresponsible temperament quite alien to those of the others, but claimed that even when not alternating with them she had direct knowledge of the thoughts, feelings and even the dreams of one of them. Morton Prince eventually cured Miss Beauchamp by hypnotism, suppressing "Sally" entirely, and re-synthetizing the other two personalities with their separate memories and experiences into a normal individual similar to the original personality as she had been before the emotional shock which was the cause of all the trouble.

More recently Morton Prince has met with another case of dissociated personality quite as remarkable as that of Miss Beauchamp, and closely similar in several respects. He calls her B C A.¹ C is the normal personality as she was before and after her mental illness, and B and A are the two dissociated personalities into which she disintegrated as the eventual result of several years of severe nervous and emotional strain. B and A alternated with one another, but whereas A had no direct knowledge of B's existence, B was immediately aware of

¹ See *Journal of Abnormal Psychology*, vol iii, 1908-9, *passim*.

A's thoughts and memories even when herself in abeyance. B and C also shared each other's memories as well as those of A, but A was entirely shut up within her own circle of memories and experiences. Neither C nor A remembered her own dreams, but β , the hypnotic personality corresponding to B, was able to recall the dreams of both. A was neurasthenic and represented the ethical and religious aspects of the original personality. She lived in a continual mental atmosphere of gloomy and apprehensive conscientiousness, and was appalled by the freakish and irresponsible behaviour of B, who lived only for pleasure, was completely egoistic and "emancipated," and during her periods of alternation enjoyed the most robust health. B thus showed a close resemblance to "Sally" in the Beauchamp case, and the importance of this resemblance will perhaps be clearer when we consider it in the light of Freud's theory of hysteria. We may note that B was co-conscious with A, or existed simultaneously as a subconsciousness, in Janet's sense of that term. Morton Prince was able to prove this in various ways, apart from the statements of B herself and of her hypnotic personality β . One illustration will suffice. It was arranged with β (unknown to A) that she should add together certain figures while A was present, and should show that she really had carried out the operation co-consciously by giving the answer immediately upon A being changed to β . She, of course, was not told what actual figures would be given. A was then brought and was asked to write out some lines of poetry in the middle of a large sheet of paper ($8\frac{1}{2}'' \times 11''$), in the left-hand upper corner of which was written the number

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53, and in the right-hand lower corner the number 61. A repeated aloud what she was writing and commented upon her mistakes of memory, showing that she was alert and not in a somnambulistic state. On being questioned afterwards she averred that she had noticed no other writing, such as numbers, on the paper. It had appeared quite blank. Even if she had noticed the numbers she would not have known what was to be done with them, since she is amnesic for B and β . A was changed to β . "Immediately on appearing β exclaimed, almost shouted: '114,' which is correct." More complicated arithmetical calculations were carried out under similar circumstances with equal success.

Certain memories of the patient's earlier years, which were lost to all the personalities even in hypnosis, were recovered by automatic writing. In this way it was discovered that her irrational fear of cats took origin from an incident of her childhood, when she was intensely frightened by a white cat she was holding having a fit. Her dreams were frequently of cats, accompanied by a feeling of intense horror.

This case is of especial interest, in that Morton Prince prevailed upon both C (or, rather, B C A.) and B to write full introspective records of their experiences during and after the disease.¹ The documents are of the greatest importance, especially as their authenticity and objective accuracy is vouched for by two other distinguished American neurologists besides Morton Prince himself. We learn from B's account how this co-conscious self commenced first as a definite emotionally tinged

¹ *Op cit.*, pp. 240-260, 311-334.

complex or system of ideas clearly known by C or B C A. She writes : " A very long time ago (she was twenty at the time) C received an emotional shock which it seems to me, as I look at it now, resulted in the first little cleavage of personality. This emotion was one of fright and led to *rebellion* against the conditions of her life, and formed a small vague complex which persisted in the sense that it recurred from time to time, though it was always immediately suppressed. This complex, it seems to me, was the same, though only slightly developed, as that which appeared later and is described as complex B." Twenty years later the sudden and prolonged illness of her husband emphasized the feelings of fright and rebellion, which now showed as " a longing for happiness, a disinclination to give up the pleasures of life which the conditions required ; and there was a certain determination to have those pleasures in spite of everything, and this resulted in a constant struggle between C and this complex." After her husband's death, C became thoroughly neurasthenic, and the B complex grew stronger. She would find herself doing and enjoying " things that she disapproved of and knew that she disapproved of." Finally, a year after her husband's death, " a third shock of a strongly emotional nature " produced a sudden change. C disappeared, and the B complex became a personality, with the general characteristics we have already recorded. But a month later a fourth emotional shock (felt of course by B) brought back C as the dominant personality, in the neurasthenic and psychasthenic form which we have called A. B subsequently alternated with A, and at the same time became also a co-consciousness, and the conflicts between the two now took

the form of antagonism between two distinct personalities. C's autobiography gives vivid descriptions of these conflicts. She writes : " I would often wake in the morning, as A, to find a note on my pillow or on the table—usually of a jeering tone—telling me to 'cheer up' or to 'weep no more,' etc. ; sometimes these notes would be in rhyme and nearly all advised me not to trouble Dr. Prince so much. These notes were written by B when I 'changed' in the night, but as A, I supposed, when I first found them, that I had written them in my sleep. If my condition had been one of remorse, it was now one of despair. After a time, as A, I destroyed all the notes I found without reading them, hoping in this way to discourage B's fondness for writing. As a result I found one morning a sheet of paper pasted directly in the middle of my mirror. It was fastened at each corner with large red seals, and bore the inscription 'READ THIS,' and contained information which it was quite necessary A should have. As B my attitude towards myself as A was something like that of a gay, irresponsible, pleasure-loving girl toward an older, more serious-minded sister. I, as B, had no patience with A's scruples and morbid ideas, and actually enjoyed doing things which I knew would shock or annoy myself as A, though occasionally as B I felt a little sorry for A." The following are extracts from the joint diary which this curiously assorted pair kept at Morton Prince's request : Under the date July 23, 190-, B writes : " I am here again to-night, B, I am. I may as well tell all I have done, I suppose. For one thing I had a facial massage—there is no need of being a mass of wrinkles. I know A doesn't care how she looks, but I do. The Q's spent the evening here

and—if I don't tell, S will, I suppose—I smoked a cigarette. S was *terribly* shocked and angry with me. Now, A, don't go and tell Dr. Prince, you don't have to tell him everything—you do it, though. I *must* have a little fun." The following day A writes : "I have struggled through another day. B has told what she did. How *can* I bear it? How explain? I am so humiliated, so ashamed. Why should I do things which so mortify my pride? Quite ill all day—I am, as usual, paying for B's 'fun.' It is not to be borne." August 20: "Terrible day—one of the worst for a long time. I *cannot* live this way, it is not to be expected. I am so confused—I have lost so much time now that I can't seem to catch up. What is the end to be? What will become of me?" August 21, B writes: "Good gracious! how we fly around! A has been ill all day—could not sleep last night. I hope he (Dr. Prince) won't send for us, for he will put a quietus on me, and as things are now I am gaining on A. Had a gay evening—no discussions of religion or psychology, no dissecting of hearts and souls while I am in the flesh." August 25: "I wonder if A is really dead—for good and all? It seems like it. The thought rather frightens me somehow, as if I had lost my balance-wheel. She wants to die, she really does, for she thinks it to herself all the time. I wish I were myself alone, and neither A nor B; I cannot bear to hear A groan, she cannot bear my glee." August 26th: "Such a day! A got away from me for a little while and tried to write a letter to Dr. Prince. It was a funny looking letter, for I kept saying to her 'you cannot write, you cannot move your hand,' but she had enough will power to write some and directed it. The

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effort used her up, however, and I came and the letter was not mailed." August 27th, A writes: "I am too much bewildered to write. I have succeeded in writing Dr. Prince, if I can only mail it. Oh, but I am tired! Such an awful struggle!"

C was eventually resynthesized by means of hypnosis. After many fruitless attempts, the corresponding hypnotic personality γ was obtained, and, as Morton Prince says, "on being waked up, a personality was found which possessed the combined memories of A and B, and was free from the pathological stigmata which respectively characterized each."

A still more recent case of multiple personality is that of "Doris Fischer," recorded by Dr. W. F. Prince and summarised by Dr. T. W. Mitchell in the *Proceedings of the Society for Psychical Research*, vol. xxxi.

IV. NEURASTHENIA.

In contrast to the crude and obvious dissociation of hysteria, with its loss of psycho-physical functions and, in many cases, its breaks in the memory continuum, we find in *neurasthenia* a dissociation at a higher level of consciousness. As the result of mental and physical fatigue, and especially after the strain of a debilitating illness, the patient may find himself worrying about his bodily functions—his digestion, the action of his heart or of his kidneys, etc.—and getting into the habit of doing so, a habit which he becomes more and more powerless to break. A vicious circle is thus set up. A slight disturbance of function arouses worry, and this worry throws the function out of gear still more, and so the trouble

grows. The patient suffers from a *preoccupation* about his health—or it may be about his business or his general position in the world. Such is, in brief, the view which Déjerine holds of the nature of neurasthenia. He considers that the state of mind of the neurasthenic is characterized by abnormal suggestibility with regard to his symptoms, a suggestibility much greater than that of the hysteric.

The dissociation here is relative, not absolute. The patient finds exceptional difficulty in thinking about matters unconnected with his preoccupation, and on relaxing his mental effort falls back at once into the treadmill of his worrying thoughts.

V. COMPULSION NEUROSIS. ANXIETY HYSTERIA.

In *compulsion neurosis* the patient is obsessed with an irresistible impulsion to perform apparently unimportant actions, such as washing the hands repeatedly, carrying out certain stereotyped movements, certain forms of ceremonial apparently meaningless, etc ; or the obsession may take the form of doubts and fears of apparently harmless things and actions. Freud would explain this psycho-neurosis as a result of mental conflict and repression, in a special type of character. The obsession is a *reaction formation*, concealing and holding down certain repressed tendencies dating from very early life—such as sadism, anal eroticism, etc. It is a disguised form of *self-reproach*, dating from childhood.

Only by prolonged psycho-analysis can these cases be cured. Often they are allowed to become too chronic for treatment to be of much use. Two examples of this type of psycho-neurosis are given

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in Chapter VI. The type falls under Janet's heading of psychasthenia, but it has well-marked and definite characteristics which call for a special name. The remaining cases of psychasthenia are mostly forms of anxiety-hysteria, in Freud's classification, in which repressed emotion or "affect," instead of being converted into physical symptoms which form the "compromise formations" of conversion-hysteria, remain in consciousness, but in the transformed character of anxiety. A useful non-committal term, independent of any one school of thought, is the term "anxiety-states," which covers all cases showing anxiety as a prominent symptom.

We must now pass on to a more detailed statement of Freud's psychology, and will begin in the next chapter with his theory of dreams.

PART II—THEORETICAL

CHAPTER III

FREUD'S THEORY OF DREAMS

I. DREAM-ANALYSIS.

ACCORDING to the theory of Freud, every dream is the fulfilment of some wish. In the great majority of cases the wish is one that has been repressed by the waking consciousness, and its fulfilment in the dream is disguised according to rules that are both complicated and diverse. It is for these reasons that the general law has so long escaped notice, and scientists have been so ready to deny all significance to dreams. This state of things is inevitable so long as attention is restricted to the dream simply as it appears in consciousness and as it is remembered by the dreamer. But corresponding to this "manifest content" of the dream there is a "latent content" which constitutes its meaning, and when discovered by the method of psycho-analysis is found invariably to be the fulfilment of some wish. The manifest content is made up of memories from the past life of the dreamer, patched together in apparently quite random order and according to the most superficial laws of association. The laws of rational connexion, especially those of causation, which dominate waking consciousness, seem to be in abeyance, and in their place the only laws of connexion observable are those of association by contiguity and association by similarity. As a

general rule the memories most commonly aroused are those of the "dream-day" (the day before the dream) and those of early childhood. Memories of the dream-day form part of every dream without exception. Actual bodily disturbances, either of the external sense organs or of the internal organs, are, when not too intense, incorporated in the dream-thought in a disguised form. In this way every dream may be regarded as fulfilling at least one wish, viz. the wish to go on sleeping. If these actual stimuli were recognized for what they are, the dreamer would no longer be asleep but awake, and this is what happens when they become too intense. Thirst arising during sleep may produce the dream-experience of drinking water in huge draughts. In this way are fulfilled the two wishes, to continue sleeping and to drink. Other bodily needs arising during sleep may receive imaginary satisfaction in the same way. Instances like these illustrate very clearly the function of dreams in acting as the guardians of sleep.

Freud relates an amusing story of a medical student who was very fond of his bed, and could only with the greatest difficulty get up in time for his work at the hospital. One morning on being called by the maid, who shouted through the door, "Get up; you must go to the hospital," he half awoke, and then proceeded to dream of a ward in the hospital in which he found himself lying upon a bed with a card hung over the head of it stating his name, age, and occupation. Remarking to himself: "Since I am already in the hospital I do not need to get up and go there," he turned over and continued his sleep.

Numerous instances may be quoted in which

the fulfilment of a wish appears in the dream in clear and undisguised form. The dreams of young children are almost invariably of such a nature. Desires, of which the satisfaction has been denied them during the day, again and again appear as fulfilled in the dreams of the following night. This kind of evidence is obviously of the highest importance for the theory of dreams, since the child's consciousness shows the laws of mental process in their simplest and most fundamental forms. The wish-fulfilments of adults are as a rule expressed somewhat less directly, even when they do not belong to those unconventional and consequently "repressed" forms which will engage our attention more fully presently. Some years ago, while working for a medical examination which it was most important that I should pass at the very first opportunity, and for which I had been able to find very little time for preparation, I dreamt one night that some one showed me the examination paper, although it was some days before the date of the examination. Not until some time after the dream did I realize its true significance and its connexion with my intense desire to pass. On another occasion, while anxiously waiting for the appearance of certain reviews which I had written for one of the daily newspapers, I dreamt that I received yet another batch of books from the same source. This dream was evidently a slightly indirect fulfilment of my wish that the other reviews of mine had not miscarried and would shortly appear.

Instances of such clear wish-fulfilments in dreams must be frequent in every one's experience, and it may with some degree of plausibility be objected that they do not necessitate any theory more elaborate

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than the one most generally accepted, viz. that dreams are simply the revival, in chance order, of memories aroused during the condition of sleep. For the imagined fulfilment of wishes may reappear as memories, just as other forms of consciousness do. Freud, however, does not admit this, since he finds that every kind of dream, whatever the nature of the memories which unite to form its "manifest content," shows under the treatment of psycho-analysis a clear reference to the fulfilment of a wish or wishes, which often gives the dream an entirely new aspect.

The method of psycho-analysis is simply a method of free association. The subject whose dream is being interpreted is asked to adopt the mental attitude of meditative expectancy, and in this frame of mind to consider the parts of the dream one after another and say just what ideas spontaneously occur to him in connexion with each. It is essential to the success of the method that he should rigidly keep in abeyance any tendency to criticize, modify, or reject any of these ideas as they arise, and that he should make a faithful record of all of them, however absurd or objectionable some of them may appear to be. The ideas which thus arise by free association will be found all to converge to one system of ideas concerned with the fulfilment of a wish. This system of ideas is the "latent content" of the dream, or the "dream-thought," and gives the dream its meaning and its *raison d'être*. The wish involved in it is one that is not in harmony with the conventional and ethical ideas of the developed personality, and is therefore entirely repressed during waking consciousness, and can only attain realization in the dream-

consciousness of sleep in underhand and round-about ways which have still to be described.

The repressing factor in the waking consciousness is named by Freud the *endopsychic censor*. The term is somewhat figurative, but lends itself well to the purposes of vivid description. In sleep this censor is still active, though not to the same degree nor with the same watchfulness. If only the repressed wish can disguise itself sufficiently, it may succeed in slipping past him unnoticed, and so rise into the half-light of dream-consciousness. Before discussing in detail the various ways in which the wish may accomplish this disguise, and which Freud classifies under the general heading of *Traumarbeit*, or dream-work, I will give a description of one of his own dreams, together with a summary of its psycho-analysis.¹ I must, however, first summarize his preliminary explanation which alone makes the dream intelligible.

Freud heard in 1897 that two professors of his university had proposed him for the position of professor extraordinarius, election to which he doubtless greatly desired. After receiving this news, and on the day before the dream, a colleague, who had for some time waited without result for the success of his own nomination to a similar professorship, visited him and told him that he had at last gone to a high authority about the matter, and had learnt that his non-success was due to his religion and nationality. Freud suffered from the same disadvantages, and so might on this score draw but a discouraging conclusion from the news as to the probable fate of his own nomination. "On the morning after this visit," writes Freud, "I had the

¹ See *Traumdeutung*, fünfte Auflage, 1919, S. 96-99.

following dream. . . . 1. Friend R. is my uncle. I feel tender affection for him. 2. I see his face somewhat altered before me. It is, as it were, drawn out lengthwise, a yellow beard which surrounds it stands out with exceptional clearness."

At first Freud was inclined to dismiss the dream as an absurdity, but remembering that in the case of his own patients this tendency often indicated that the meaning of the dream was a disagreeable one, and such that the person was loth to admit even to himself, he proceeded to analyse it, pondering over it sentence by sentence and noting what ideas occurred to his mind while doing so. It then became clear to him that the face was, as it were, a composite photograph of the friend of the previous evening's conversation and one of his uncles, who had been unfortunate enough to come within the arm of the law. His father was in the habit of attributing this uncle's downfall not to wickedness but to weakmindedness. Consequently the dream purports to say that his friend R. is weakminded or stupid, like his uncle. Further reflection brings to light the memory of a conversation with another colleague who had likewise been unsuccessfully nominated for professor, and who attributed his failure to an accusation brought against him by one of his patients. The courts had dismissed the charge as entirely unfounded and malicious, but the incident could not fail to injure his prospects. The meaning of the dream is now clear. The uncle represents just those two colleagues of Freud who had been unsuccessful in their nominations for professorships. By disingenuously insinuating that one of them is stupid and the other a criminal the dream clears the way for the success of Freud's

own nomination, since on these assumptions the fact of his religion need not weigh against him. The dream represents the *wish* that this might be the real state of affairs—a wish that Freud would not for a moment entertain in the waking state or even in manifest form in a dream.

The tender affection experienced in the dream still needs explanation, since it is much more pronounced than that which Freud had ever felt for his uncle or for his friend. Reflection shows that it does not belong to the latent content. It is directly contrary to this content and eminently adapted to hiding the full significance of the dream-thought from the dreamer himself. This indeed is its real purpose. By changing the appropriate feeling-tone of the latent content into its opposite the wish has succeeded in evading the censor and achieving its own dream-fulfilment.

Other ways in which the latent content may disguise itself are by transferring the feeling-tone from one part of the manifest content to another, by altering the emphasis of different elements in the manifest content, so that a prominent element corresponds to an unimportant part of the latent content, and conversely, and, above all, by the use of symbolism. This symbolism is, to some extent, different for different persons, and also for different nationalities, since it partly depends upon the chance associations of experience and upon the similarities of words representing different objects. But some symbols would seem to be common to the majority of people, especially in matters connected with sex. Sexual relations may be represented by walking up and down stairs, by flying, or by journeying in a train or other vehicle. Entering into water

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may symbolize, by opposites, the fact of birth. Hats and shoes in dreams often have reference to sex. Many other symbolismes are met with which are too obvious to need mention here. Freud records the case of a woman who dreamt that she saw her fifteen-year-old daughter lying dead in a box, in which psycho-analysis showed that the latent content of the dream was a wish dating fifteen years back that the child might die before it was born. This is a good illustration, in Freud's opinion, of the way in which wishes may persist for years in the unconscious uninfluenced by later experience.

In Freud's opinion a very large proportion of the repressed wishes which realize themselves in the dreams of adults originate in early childhood. They are also, he thinks, predominantly sexual in nature, the sexual mental life of the child beginning much earlier than scientists have generally supposed. The sexual inclinations may find their earliest objects in the parents, and then undergo vigorous repression as the result of further development and education. These repressed wishes may show themselves later in dreams, or, when very strong and very firmly repressed, may give rise to more serious symptoms. The attraction is accompanied by feelings of hatred and jealousy towards the parent of the opposite sex. These are repressed in the same way and for the same reasons, and may in later life produce dreams of the death of the father or the mother, as the case may be.

The legend of Œdipus, who unwittingly kills his own father, Laius, and marries his own mother, Jocasta, and, though guiltless in intent, pays the penalty for this unholy act, is a mythical represen-

tation of this general tendency in human nature. Freud would explain the mystery of Hamlet in the same way. Hamlet is unable to take vengeance on the man who has supplanted and murdered his father because he himself in his early youth had wished his father's death. The wish has been vigorously repressed, and he is at present unconscious of it, but it still exists in his unconscious and produces the inhibitory effects depicted in the play. Freud considers that repressed wishes of this nature are the principal factor in the production of all the psycho-neuroses.

If we bear in mind that children's ideas of death are very vague and in most cases correspond simply to "permanent absence," the theory is not so outrageous as it might otherwise seem to be. The "naturalness" of family affection has undoubtedly been greatly exaggerated by earlier thinkers, and the passions of hostility aroused within the family circle are often very fierce. As the children grow up these feelings generally disappear and make way for the more conventional and intellectualized forms of sentiment, but deep down in the unconscious recesses of their souls persist the traces of earlier conflicts.

It may be thought surprising that such an immoral wish as that of death should ever succeed in passing the censor and attaining to a dream-fulfilment. Two facts sufficiently explain it. In the first place the wish is the last in the world that we should ever consciously entertain, and for this reason the censor is unprepared for its appearance. In the second place the wish-fulfilment is accompanied in the dream by a feeling of intense sorrow which seems to receive a sufficient explanation in

the anxiety for the person's welfare which the dreamer has genuinely felt in more recent times, especially during the dream-day, and which might be expected to persist as a memory in the dream. The real source of the sorrow is the fact that the censor has been overpowered.

These considerations suggest the probable explanation of all forms of *anxiety dreams*, which are accompanied by pain, and seem therefore in such flagrant contradiction to the wish theory. Freud writes :—

The anxiety dream only occurs when the censor is partly or entirely overpowered, and on the other hand the overpowering of the censor is facilitated when anxiety as an actual sensory experience is already given from bodily sources. It thus becomes evident to what end the censor exercises its function and brings about the distortion of dreams ; it does so *in order to guard against the development of anxiety or other forms of painful feeling* (*loc. cit.* 185).

And again in another passage (p. 163), distinguishing two types of anxiety dreams :—

On the one hand, the anxiety in the dreams may be a psychoneurotic one, springing from psycho-sexual excitations, where the anxiety corresponds to repressed *libido*. In this case the anxiety, and the entire anxiety dream, have the significance of a neurotic symptom, and we stand on the borderline, where the wish-fulfilling tendency of the dream suffers shipwreck. In other anxiety dreams, however, the anxiety feeling is given in the bodily conditions (e.g. accidental difficulty in breathing, as in the cases of heart- and lung-patients), and then this feeling is made use of to help such energetically repressed wishes to a dream-fulfilment, the dreaming of which from psychical motives would have aroused the same anxiety feeling.

I have quoted these passages in the author's words because they are so crucial for his whole theory

both in its psychological and in its pathological aspects. For my own part, and on the basis of my own experiences, I find it very difficult to agree entirely with this explanation. It may not be special pleading, but it seems very much like it. Why this persistent and almost impertinent faithfulness to one idea? Are not fears just as primitive as wishes and just as capable of repression without annihilation? May we not broaden the basis of our explanatory system? Freud has considered these and other possibilities, and on the basis of experience rejects them. But it is difficult to see how experience can force us to the wish-explanation when the huge class of anxiety dreams require such complications of the theory before they can be brought into line with the others.

In this connexion I might mention a striking experience of fear-repression with persistence in the unconscious that happened to me some years ago. One day while out hunting I had two bad falls in rapid succession, but in the excitement of the chase felt none of the organic disturbances of fear, much to my own surprise. That night I dreamt of the entire hunt from start to finish, but with intense fear. My heart felt literally in my mouth the whole time. Even months later the feeling sometimes recurred at night, although during the day I felt nothing of it and did not find it interfere with riding. Psycho-analysis showed nothing in the "latent content" to explain this fear.

It is difficult to explain a dream of this kind in terms of wish-fulfilment, although the other part of the theory, the repression, is well illustrated by it. Freud's theory would fall much more completely into line with the views of modern psychology if

in it he replaced "wish" by "emotional or instinctive tendencies." Examples of such emotional tendencies are fear, anger, self-assertion, self-abasement, and disgust, and systems of ideas tinged by these emotions may be on occasion driven from the main consciousness into the unconscious and reappear, under certain conditions, in dreams.

II. DREAM-SYNTHESIS.

We have still to consider Freud's theory of dream-synthesis as distinguished from dream-analysis. Many different kinds of processes may be detected in the *Traumarbeit*, or dream-work. In the first place there are those processes of disguise adopted by the latent content which I have in outline already described. Secondly, there are the means which the dream-thought employs to represent those thought-relations, or relations of predication, which the manifest content cannot directly express in their real form. Logical connexion in general in the latent content is represented by simultaneity in the manifest content. The relation of causality may be represented either by a mere succession of dream images or by an observable transformation of one into another. In the first case the succession is often between one dream and the next. Similarity is represented by unification, in the form either of identification or of a composite picture. These expressions of similarity often serve to represent a *desired* similarity. Relations are often represented in the manifest content in a reversed form; even in the succession representing causality the effect is frequently put before the cause. The explanation of this is, of course, the desire to evade the censor.

Lack of clearness in the dream often represents actual uncertainty in the dream-thought. One of Freud's patients at first refused to relate her dream to him "because it was so indefinite and confused." Finally, after some persuasion, she said "that there were several persons present in the dream, herself, her husband, and her father, and that she didn't seem to know whether her husband was her father, or who her father really was, or something of that sort." The explanation was that she was expecting a child, and that her friends had been bothering her to know "who exactly the father was." Evidently in such a case as this the lack of clearness is really a part of the dream-thought.

There are two general characteristics of dreams which deserve special mention. One is "condensation" (*Verdichtung*), where, through appropriate choice of material for the manifest content, the dream expresses the fulfilment of several wishes in one short dream experience. The manifest content chosen is as it were a nodal point or a number of nodal points from which important trains of associations lead in different directions to eventually reach and sustain a number of wish-fulfilments. Each part of the manifest content is overdetermined, so that "overdetermination" (*Ueberdeterminierung*) is simply the other aspect of condensation. The second characteristic is that of "displacement" (*Verschiebung*), and has already been mentioned in another connexion. It consists in a shifting of emphasis or of psychical intensity from one part of the dream to another, "a transvaluation of all values" as Freud calls it, and produces a distortion of the dream which helps the repressed wish to evade the censor.

A tendency towards the rationalizing of the manifest content along lines different from those of the hidden wish-fulfilment may often be detected in a dream, and may also continue to exert an influence on it after waking. This is what Freud has named "secondary elaboration," and is, of course, the work of the censor. The influence of the censor is also to be seen in the tendency to forget one's dreams, which may even extend to the interpretation of them. One may wake up from a dream during the night, interpret it, and fall to sleep again, and find the next morning that both dream and interpretation are forgotten. A fact like this is sufficient to refute Dr. Morton Prince's criticism that the forgetting of dreams is simply a special instance of the forgetting of dissociated states of consciousness. The forgetting is an active process of repression similar to the repression which first drove the wish into the unconscious.

All dreams, without exception, are egoistic. They are the fulfilment of wishes of an entirely selfish nature. In dreams where the dreamer himself does not seem to be present, it will be found that he is represented by some other personage. If several of these are present the ego is to be identified, thinks Freud, with the one who carries the "affect."

Professor Freud has worked out an elaborate psychological system to explain the phenomena of dreams and psychoneuroses, which I deal with more fully in the next chapter. Like many other psychologists, he regards the "psychical" as something very much wider than the "conscious." Of the latter he writes: "Consciousness appears to us to be a sort of sense-organ, which perceives a content given from elsewhere" (p. 101). This

content, when not illuminated by consciousness, may yet persist as an unconscious psychical process. But Freud makes a new and important contribution to psychological theory in distinguishing between two kinds of unconscious ideas, to which he gives the names "preconscious" and "unconscious" respectively. Describing the mind as a sensori-motor system made up of subsidiary systems or "instances," he writes :—

The last of the systems at the motor end we call the "preconscious," in order to indicate that the excitation processes taking place within it can rise to consciousness without further hindrance, provided that certain conditions are fulfilled, e.g. the attainment of a certain intensity, a certain distribution of that function which is known as attention, and so forth. It is also the system which holds the key to voluntary movement. The system behind this we call the "unconscious," because it has no access to consciousness *except through the preconscious*, during which progress its excitation process necessarily undergoes alteration (p. 403).

Put quite briefly, the distinction would seem to be one between repressed and unrepressed memories. The "unconscious" contains those tendencies experienced, or at least existent, during our past life, especially during the early years of childhood, which have been energetically repressed, and the censor, which is the allegorical name for this repression, is therefore situated between the unconscious and the preconscious. That is to say, the censor is itself unconscious (or preconscious), although at the time when the repression of the infantile tendencies first took place it may have been conscious. Freud also inclines to the view that there is some evidence for the existence of a second censor between the preconscious and the conscious.

Now, it is the preconscious which furnishes the material of the "manifest content" of our dreams, and in it may be found not only wishes, but fears, anxieties, hopes, and all the other conative tendencies displayed by the mind. On the other hand, the unconscious contains wishes, and wishes only. These date from early childhood and are mainly sexual in nature, since few other wishes would have met with the vigorous repression necessary to drive them into the unconscious. Freud brings forward some interesting arguments in favour of this theory of the fundamental nature of wishing in early life.

The wishes of the adult consciousness, even when repressed, are in Freud's view seldom intense enough to serve single-handed as the motive to the formation of any dream, and in most cases, if not in all, need the co-operation of unconscious infantile wishes. It is these latter which supply the requisite energy, although themselves remaining hidden until revealed by psycho-analysis. They transfer their psychical energy to corresponding elements in the preconscious, and so attain to a vicarious fulfilment. The only wish derived from the preconscious which is a primary constituent of any dream is the wish to continue sleeping, and this wish is an essential part of every dream. It might perhaps be regarded as an infantile wish which has never been repressed and has never undergone modification in the course of mental development.

III. OBJECTIONS MET.

Before setting out Professor Freud's elaborate "Psychology of Dream Processes" as given in the concluding chapter of the *Traumdeutung*, and

using it as the basis of criticism of his theory from the point of view of modern psychology, it will be well for us to consider two rather obvious objections which, if valid, would stultify the theory from the very outset. In the first place it may be contended that the memory for dreams, which is our only source of knowledge of them, is notoriously fallacious. Not only is it fragmentary, showing complete forgetfulness of whole stretches of the dream-experience, but it falsifies those parts that are retained. If a person is asked to describe his dream at different periods after the actual dream-experience, the various accounts which he gives are found to be not only different, but even in many respects inconsistent with one another. He also feels very uncertain about the precise nature of the events described. Morton Prince regards this difficulty in remembering as merely a special instance of "amnesia for dissociated states of consciousness," and a proof that dream-experiences are nothing but such dissociated states brought about by the condition of sleep. But such an explanation can hardly be valid, since Freud and others have found that if they wake up from a dream in the course of the night, interpret it by their method, and then fall to sleep again, they are the next morning often unable to remember either the dream or its interpretation. Now, the interpretation is not a "dissociated state," so that Morton Prince's explanation here falls to the ground. The true explanation in Freud's view is that the forgetting is due to the action of the "censor," which in such cases as these suppresses the memory, not only of the dream, but also of its interpretation. It is merely the continuation in the waking state of that process of distortion and secondary elaboration

which we have seen to result from the activity of the censor throughout the dream-experience. And since the laws of these processes are known, the amnesia and falsification present no insuperable difficulty to analysis and interpretation. The fragments of the dream that remain in the memory are as a rule sufficient to give the clue to the underlying dream-thoughts when submitted to the technique of psycho-analysis. The feeling of uncertainty which the dreamer often has about the memory of his dream is also to be attributed to the action of the censor, and only by rigorously ignoring this feeling and treating all his memories as on the same level of reliability can he hope to overcome the resistance sufficiently to penetrate to the dream-meaning. Freud has often found, in the case of his hysterical patients, that a dream which the patient has apparently quite forgotten may suddenly rise to memory in the course of a psycho-analysis where a resistance connected with the patient's symptoms has at last been overcome, showing most convincingly that the amnesia for the dream must have been due to a similar, if not the same, resistance.

The second objection is aimed at the reliability of the method of psycho-analysis. It is contended that a chain of free associations starting from any particular portion of the dream may end anywhere, and that then, when another portion is submitted to the same treatment, the associations are no longer completely "free," since they are to some extent, however slightly, determined and constrained by the result of the previous association series. Consequently it is no wonder that in the final result the various chains of association are

found all to converge to one and the same system of dream-thoughts.

To this we may reply, firstly, that the interconnexions discovered by this method between the manifest and the latent contents are far too complex and far too full of surprises, cross-connexions, and remarkable coincidences to be regarded as merely the products of the method itself. But, secondly, the method is not with complete accuracy called one of *free* association. All associations without exception are dominated by some interest or purpose, and when the subject's voluntary and conscious purposes are allowed to fall into abeyance in the non-critical attitude adopted in psycho-analysis, unconscious purposes take their place and guide the course of the ideas. It is because of this fact that psycho-analysis is able to give us an insight into the nature and structure of the unconscious.

The other great method that has been found successful in the same task is that of hypnotism, but Freud's objections to hypnotism are that it is not sufficiently universal—only a small proportion of patients are amenable to hypnotism—and also that, although it overcomes some resistance and so widens the field of mental life open to observation, it accentuates the resistances at the border of this field and thus makes complete analysis of the unconscious in any direction impossible. Dr. C. G. Jung, of Zürich, has supplemented Freud's method by employing lists of words, previously selected and arranged, and calling them out to the subject. The subject is told to reply to each as quickly as possible with the first word that comes into his mind. The times taken in replying—the association-times as they are called—are measured in fifths of a second

by means of a stop-watch, and are as valuable as the associations themselves in revealing the workings of the unconscious. Those words which strike on an unconscious emotional "complex" or system of ideas give prolonged association-times—in hysterical patients as long as six or seven seconds instead of the normal one-and-a-fifth seconds. Sometimes the subject is quite unable to give any associated word. Such failure or difficulty in responding reveal the resistances to which the ideas in the unconscious are exposed. The ideas themselves can only rise to consciousness when these resistances have been completely overcome.

The essence of Freud's dream-hypothesis from the purely theoretical point of view is his distinction of two kinds of mental mechanism, a primary and a secondary. It is the laws of the secondary mechanism that are given in ordinary text-books of psychology. Those of the primary mechanism are in some respects very different. They include the processes of condensation, displacement, "draining-off" of energy or intensity from one idea to another, and finally regression, which we shall describe in the next chapter. Freud claims to find the same processes active in cases of hysteria, and seems to regard his view of each of these two classes of facts as confirmatory of the other. All these processes, although psychical in nature, may occur independently of consciousness. Consciousness, in Freud's view, is merely a kind of sense-organ which does or does not perceive these psychical processes and products according to the distribution at the moment of the mental energy which we call attention. This account of consciousness will hardly satisfy psychologists, but many of them will be ready to admit the

real existence of the unconscious in the Freudian sense, as well as of the preconscious. Many of Freud's difficulties are difficulties of terms rather than of facts. We may accept his facts and value them as new discoveries, while rejecting some of his terms and descriptions as misleading. The term "censor" corresponds to a verifiable fact, but the figurative use which Freud makes of it is not without danger. The censor is not an entity existing by itself and in its own right, nor is it really intelligible apart from all reference to consciousness, as Freud would have it to be; and when he speaks of a second censor between the pre-conscious and consciousness, one feels a still greater difficulty in knowing exactly what meaning to attach to the word. Yet the term is useful as emphasizing the fact of repression, and for descriptive purposes is wellnigh indispensable.

CHAPTER IV

FREUD'S THEORY OF THE UNCONSCIOUS

FREUD summarizes his fundamental views as to the nature and laws of working of the human mind, which he has formed on the basis of a detailed study of dreams and functional diseases, in the final chapter of the *Traumdeutung*. In fact, no one who has failed to master this most difficult chapter can justly claim any real insight into the theoretical and psychological aspects of Freud's work. It is only here that the exact meanings of such conceptions as "wish-fulfilment" (*Wunscherfüllung*), "repression" (*Verdrängung*), and the "censor" (*Zensur*) are to be found, and the popular and figurative nature of much of the Freudian terminology is corrected. I shall therefore make this chapter the basis of my discussion.

I. THE GENERAL LAWS OF MENTAL PROCESS.

We have seen that dreams, like hysterical symptoms, are regarded by Freud as being the disguised fulfilments of repressed wishes. The manifest content of a dream is made up of a collection of memories from the waking life joined together by the most superficial forms of association. Organic sensations and other sensory disturbances occurring during sleep, if not sufficiently intense to produce awakening, are either ignored or woven into the texture

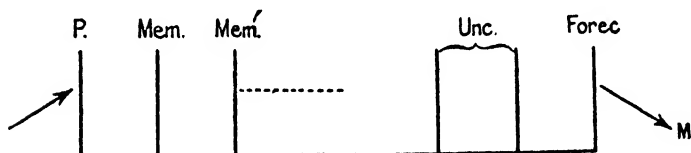
of the dream by arousing corresponding memories after the manner of an illusion. The method of psycho-analysis, to which we shall refer again later, enables us to find a meaning for this dream-formation in a set of latent dream-thoughts which are invariably of the nature of wish-fulfilments. Since, according to Freud, the repressed wishes to which hysterical symptoms likewise point are always derived from an infantile source, he is strongly inclined to the view that the dream-wishes are also either themselves infantile wishes or else wishes analogous to and sustained by wishes dating from the period of early childhood. He admits that this view has not yet been conclusively proved, but contends that it cannot be disproved. A large proportion of the dream-interpretations hitherto made do, as a fact, point to infantile wishes as the underlying motive power.

The discrepancy between the manifest dream-content and the latent dream-thoughts is due primarily to the resistance of the endopsychic censor. In order to evade this resistance and reach consciousness, the latent wishes undergo certain changes which may be summed up in the words "condensation," "displacement," "dramatization," and "secondary elaboration." In "condensation" the numerous dream-thoughts are replaced by a much smaller number of ideas selected because they act as nodal points in many intersecting trains of ideas and allude to these rather than directly represent them. "Displacement" refers to the shifting of psychic accent from one part to another of the manifest content whereby the direct correspondence between it and the latent content is masked. Affects may also be displaced to produce the same

result. "Dramatization," or regard for dramatic presentability (*Rucksicht auf Darstellbarkeit*), is provided for by the important process of "regression," in which the dream-thoughts are reduced to their raw material, viz. sensory (chiefly visual) presentations, of hallucinatory vividness. These three changes constitute what is known as the "dream-work," and are characteristic of a form of mental activity neglected by normal psychology and almost unknown to normal waking consciousness, but identical with that responsible for the symptoms of hysterical patients. The fourth change, "secondary elaboration," is a process akin to that of waking consciousness, being an attempt to rationalize these strange and perplexing dream-formations and knit them up into a story or event with some degree of coherence. This process continues after the dreamer awakes, and is one of the causes of the falsification of his memory of the dream during the following day.

Freud, in his attempt to form a general explanatory system within which these various psychical processes may be co-ordinated and rendered intelligible, finds it convenient to approach the subject with a number of "auxiliary ideas" which, like auxiliary equations in mathematics, act as a sort of scaffolding in the discussion and are to be abandoned or drastically modified later on, according to the needs of the argument. Borrowing from Fechner the idea of a difference of "psychic locality" in dream-formation, he conceives the mind as a system made up of a number of subsidiary systems placed in a definite order one behind another, so that mental activity will involve the excitation of these systems in a definite sequence. The spatial idea

is here used metaphorically and has no necessary relation to the neural changes underlying mental activity. The following diagram¹ sums up this first tentative hypothesis :—



P. represents the perceptual system, devoid of memory. Mem. is the system conserving the lasting traces of individual perceptions, in front of which are situated a series of other memory-systems, Mem', corresponding to the various forms of association between these memories — simultaneity, similarity, etc.—and also, presumably, to higher thought-relations. Normal functioning of the psychical apparatus involves a transmission of excitation from the perceptual system in a progredient direction through the various memory systems to discharge itself eventually in motor innervation. But Freud draws an important distinction between two classes of memories or unconscious processes, one of which (Forec.) is in more immediate relation to movement (M.) than the other (Unc.). It is called the “preconscious” (*das Vorbewusste*) or foreconscious, and the other is the “unconscious” (*das Unbewusste*). Excitations in the preconscious can reach consciousness and pass over to movement so soon as they attain a certain degree of intensity and thus attract sufficient *attention* to themselves. Those in the unconscious can only reach consciousness and control of the motor system by passing

¹ *Traumdeutung* (Brill's translation), 429.

through the preconscious. In so doing they undergo certain changes. If, however, one inferred from this that, according to Freud, the preconscious is "the censor" (*die Zensur*) of the dream-theory, one would probably be wrong, for he distinctly refers to the latter as "the resistance watching on the boundary between the unconscious and the preconscious,"¹ and in several other passages seems to make it clear that his conception of the censor is that of a "non-conscious resistance" situated between the two systems of the unconscious. There is also a second censor between the preconscious and consciousness.² For consciousness, in Freud's view, is to be regarded as simply a "sense-organ for the perception of psychic qualities,"³ and even ideas in the preconscious may, if objectionable, be denied entrance to consciousness. The various processes we have been hitherto describing, and in fact all those of which the mind is capable, are to be regarded as running their course independently of consciousness. The true function of consciousness will be revealed later, when we come to closer grip with the central problem of psychological explanation. We may, however, conveniently quote at this stage of our discussion the significant words of Freud on "unconscious psychical process:" "Everything conscious has its preliminary step in the unconscious, whereas the unconscious may stop with this step and still claim full value as a psychic activity. Properly speaking, the unconscious is the real psychic ; *its inner nature is just as unknown to us as the reality of the external world, and it is just as imperfectly reported to us through the data of consciousness as is*

¹ *Op. cit.*, 430.

² *Op. cit.*, 490.

³ *Op. cit.*, 121, 453, 488

the external world through the indications of our sensory organs."¹ In this passage Freud is using the term "unconscious" in the wider sense subscribed to by many modern psychologists, but in his own conception of the unconscious, as distinguished from the preconscious, we have an entirely new contribution to psychological theory. Freud's unconscious comprises the memories and mental processes of very early childhood, which have been repressed or abandoned in later life, but which still retain their power of indirectly influencing consciousness by transferring the energy at their disposal to analogous ideas repressed from the preconscious, thus making these also unconscious.

Before leaving this first approximation to an explanation of the working of the mind, we may use it to illustrate what is meant by "regression" in the Freudian system. Regression occurs when the excitation within the psychical apparatus takes a regressive instead of a progressive direction. This is, in Freud's view, the cause of the hallucinatory nature of dreams, and indeed of all hallucinations. Repelled by the censor and attracted by infantile wishes in the unconscious which transfer to them their energy, the latent dream-thoughts abandon the progressive path through the preconscious towards movement and consciousness, and pass backwards through the various memory systems until they reach the perceptual system. The intensification necessary for this penetration to the perceptual system is mainly accounted for by the processes of condensation and displacement, although in the case of dreams the cessation of the progressive stream of excitation present in waking life is a contribu-

¹ *Op. cit.*, 486.

tory factor. In this way consciousness is aroused at the sensory end of the apparatus, and the dream has succeeded in evading the censor rather than surmounting it. The lowered activity of the censor during sleep, which Freud also assumes, only explains the formation of those few dreams which lack the dramatic character, and come to consciousness as thoughts, not as images. These pursue the progressive course throughout. In regression, on the other hand, "the structure of the dream-thoughts is broken up into its raw materials,"¹ and the thoughts are transformed into images.

As an instance of a hysterical hallucination produced by the same mechanism we may mention the case, given by Freud, of a twelve-year-old boy who was prevented from sleeping by a terrifying vision of green faces with red eyes. This hallucination corresponded to a suppressed memory, dating four years back, of a boy companion who had taught him many bad habits, including onanism. The patient's mother had remarked at the time that this boy had an unhealthy greenish countenance and red-rimmed eyes, and warned her little son that such wicked boys become backward at school and die young.

The explanations of hallucinations given in psychological text-books are for the most part physiological in nature and tend to slur over, if indeed they do not ignore, the problem of the "meaning" of the hallucination. Thus James² explains these phenomena in the following way: The sensory vividness of an actual percept is due to (or, rather, correlated with) the passage of afferent nerve currents

¹ *Op. cit.*, 431.

² *Principles of Psychology*, 1890, ii, 123, 124.

at high potential across the synapses of the sensory centre in the cerebral cortex. A mental image, on the other hand, lacks sensory vividness because it is due to the excitation of the sensory centre by nerve currents of low potential flowing along association fibres from other parts of the cortex. While falling asleep, however, or under abnormal conditions in waking life, the synaptic resistances of the centre increase, so that the nerve-currents of low potential which are continually flowing to it along association paths can no longer pass through it and drain away into efferent fibres. The result is that nervous energy accumulates, the potential of the nerve-currents rises until it once more overcomes the synaptic resistance and produces an "explosive discharge" of the nerve-cells corresponding in intensity to that accompanying perception. Hence the subjective hallucinatory experience. This theory assumes an identity of physiological site for the percept and the corresponding mental image, whereas for Freud the P system and the Mem. system are quite distinct, since he considers that the former must be quite devoid of memory if it is to perform its functions adequately. Moreover, Freud does at least attempt to explain why certain mental contents are chosen to form an hallucination and not others. Those are selected which are recent and in themselves unimportant, since they have not had time or opportunity to enter into far-reaching associative connexions in the preconscious, and therefore are suitable material to receive the "transference" (*Uebertragung*) of energy from desires in the unconscious. Their unimportance and superficial connexions with one another also protect them from the censorship.

The idea of regression is also to be found in McDougall's explanation of hallucination. McDougall writes : " It is known that in many cases of hallucination there is chronic irritation of a sense-organ ; in cases of auditory hallucination, for example, it has sometimes been found that there is disease of the ear leading to continual irritation of the sensory neurones. We may suppose that disease induces an irritable weakness of a certain system of paths in one of the sensory areas of the cortex, so rendering them paths of abnormally low resistance, and that any impulses passing up from the corresponding sense-organ, and possibly also from other sense-organs, are therefore liable to be diverted to them from their normal paths, *so re-exciting the chains of cortical neurones in their whole length*, and producing a representation of sensory vividness." ¹ In Freud's theory, however, such an " irritable weakness of a certain system of paths " would not in itself suffice to produce the hallucination without the aid of energy from the powerful wishes of the unconscious which also determines the exact form which it shall take.

II. REPRESSION AND WISH-FULFILMENT.

In attempting a more accurate statement of his theory, Freud attributes to his unconscious and preconscious systems two different kinds of psychical process, viz. a " primary process " and a " secondary process " respectively. The one fundamental difference between these, which accounts for all the others, is that the secondary process is capable of " inhibition," while the primary is not. The primary is

¹ W. McDougall, *Physiological Psychology*, 86 (*italics mine*).

the primitive and infantile, although even in earliest childhood it is probably not entirely unaccompanied by at least the germs of the secondary process. Its activity is limited to that of "wishing," and it strives to satisfy desire solely by reviving the memories of previous satisfactions and by intensifying them to hallucinatory vividness. Since permanent satisfaction is not to be obtained in this way, the mind has had to develop a secondary process which treats the memory of a previous satisfaction not as an end in itself but merely as a means to a more roundabout process of reinstating the actual satisfying object, or one like it. The primary process strives after a "perception identity," the secondary after a "thought-identity." In both cases the motive power is a wish, since, as Freud says, "nothing but a wish can impel our psychic apparatus to activity."¹

But Freud's fundamental explanatory principle is that of a *Besetzungsenergie*, or "occupation energy," which is subjected to different distributions within the psychic apparatus under different circumstances. Within the system of the unconscious this occupation energy is capable of a complete displacement from one presentation to another, so that ultimately one or a few presentations, which may be regarded as representing the rest, become sufficiently intense to penetrate to the perceptual system of the psychic apparatus. This is, of course, the primary process of wish-fulfilment; and the processes which we have hitherto classified under the heading of the "dream-work" are nothing but aspects of the primary process. It is the same process which is responsible for the

¹ *Op. cit.*, 447. This sentence indicates one fundamental weakness of Freud's system, since *conations* below the ideational level are, of course, motive forces of the mind.

symptoms of hysteria, where the effects of condensation ("identification" or "composition") and regression are clearly visible.

The distribution of "occupation energy" under the influence of the secondary process is quite a different one. Freud writes: "The manifold activity of the second system, tentatively sending forth and retracting energy, must on the one hand have full command over all memory material, but on the other hand it would be a superfluous expenditure for it to send to the individual mental paths large quantities of energy which would thus flow off to no purpose, diminishing the quantity available for the transformation of the outer world. In the interests of expediency I therefore postulate that the second system succeeds in maintaining the greater part of the occupation energy in a dormant state and in using but a small portion for the purposes of displacement."¹ This is what he calls regulation by the "principle of the smallest expenditure of innervation" (*Prinzip des kleinsten Innervationsaufwandes*).

Another principle which is obeyed by *both* systems is the "principle of pain" (*Unlustprinzip*). This is simply the deviation of the psychic process from any memory involving pain. By virtue of it, "the first system is altogether incapable of introducing anything unpleasant into the mental associations. The system cannot do anything but wish."² Such a mere turning away from a painful memory is "the model and first example of 'psychic repression' (*Verdrängung*)."

The second system retains control over painful memories in the face of this principle by so "occupy-

¹ *Op. cit.*, 475.

² *Op. cit.*, 476.

ing " them that the pain attaching to them—which, like pleasure, is an efferent process analogous to a motor or secretory innervation—is almost completely inhibited. Now, owing to the insufficient development of the secondary process in the first two or three years of childhood, the memories and wishes of this period remain beyond control and inaccessible to the consciousness of later life. Some of these unconscious wishes are in conflict with the later wishes of the preconscious, so that their fulfilment would now produce pain instead of pleasure ; " and it is just this transformation of affect," says Freud, " that constitutes the nature of what we designate as 'repression,' in which we recognize the infantile first step of passing adverse sentence or of rejecting through reason." ¹ An example of this transformation of affect is the appearance of "disgust" at a certain point in infantile development while previously absent.

These unconscious infantile memories are the precondition of all later repression. They are able to transfer their energy to any neglected or suppressed thoughts of the preconscious whose content may happen to stand in some relation with their own. The preconscious then turns away from these thoughts of transference in accordance with the principle of pain, and thus they are, as it were, drawn into the unconscious. This deviation from thoughts "capitalized" by wishes in the unconscious is what is known as "repression." We thus see that "repression" (*Verdrängung*) is not quite the same thing as "suppression" (*Unterdrückung*), and has a definite technical meaning of its own in the Freudian system of psychology.

¹ *Op cit.*, 479.

The repressed thoughts originating from the pre-conscious are now strong enough to persist in an independent and unconscious existence of their own, but can only attain to consciousness, if at all, by pursuing a regressive course and reaching the perceptual system. This is the way in which hysterical symptoms—paralyses, anæsthesias, aphonias, tics, contractures, convulsions, phobias, etc.—originate, although it appears that another universal condition of their production is that a counter-wish from the preconscious, generally of the nature of a self-punishment, should also be present and fulfilled by the same symptoms. Hysterical symptoms are thus to be regarded as “compromise-formations,” satisfying as well as may be a wish from the pre-conscious and one or more wishes from the unconscious. The dreams of normal persons are exactly analogous to such symptoms, being a compromise between the wish to sleep of the preconscious, and unconscious wishes aroused during the previous day or in the course of the night.

An essential part of Freud's theory of the psychoneuroses is the view that “only sexual wish-feelings from the infantile life experience repression (emotional transformation) during the developmental period of childhood.”¹ These are partly autoerotic, and partly directed towards the parents, or their substitutes, and constitute the well-known “Œdipus complex” or “Electra complex,” according to the sex. It is because they are capable of an organic reinforcement in later life, especially at the time of puberty, that they endanger the mental equilibrium as no other tendencies can do. As regards the dreams of normal persons, Freud prefers to leave

¹ *Op. cit.*, 480.

it undecided whether these are ultimately based upon sexual wishes of the unconscious.¹ Indeed, in some passages of the *Traumdeutung*, he definitely leans towards the view that tendencies like hunger, thirst, and the desire for power are fully competent to produce dreams without further aid from the unconscious. Anxiety dreams are certainly sexual in significance, if not always so in origin. The feeling of anxiety is due to an overpowering of the second system by the first, and indicates a failure in that "compromise" to which we have already referred. Thus the function of compromise-formations, such as dreams and hysterical symptoms, is to guard against the outbreak of anxiety. Freud illustrates this by reference to the case of agoraphobia. "Suppose a neurotic incapable of crossing the street alone, which we would justly call a 'symptom.' We attempt to remove this symptom by urging him to the action which he deems himself incapable of. The result will be an attack of anxiety, just as an attack of anxiety in the street has often been the cause of establishing an agoraphobia. We thus learn that the symptom had been constituted in order to guard against the outbreak of the anxiety. The phobia is thrown before the anxiety like a fortress on the frontier."² But in some cases the originating cause is the intense pain of certain organic sensations aroused during sleep, especially with people who suffer from disease of the heart or lungs. The anxiety thus somatically aroused gains a psychical interpretation in the dream by liberating unconscious wishes, the fulfilment of which in face of the censorship would be accompanied by a similar feeling of anguish.

¹ Cf. p. 481.

² *Op. cit.*, 459.

III. PSYCHO-ANALYSIS AND "FREE" ASSOCIATION.

With regard to the use of "symbols" in dreams, it is only necessary for us, in the interests of theory, to point out that these are not products of dream-activity. The symbolizing tendency is already present in the latent dream-thoughts, and is identical with that responsible for our myths and legends. The predominant use which the dream makes of such symbols is due to their dramatic fitness and their freedom from the censorship. Although certain of these symbols tend to have the same meaning among a whole class of individuals, it must never be forgotten that their significance in any single case can only be accurately determined by means of psycho-analysis. It is because Pierre Janet has failed to realize this that so much of his recent criticism of the Freudian school is unconvincing.¹

Psycho-analysis is something more than a mere catechizing of the patient. Experience has shown that certain memories which are inaccessible under ordinary circumstances will rise to the surface of the mind if the patient adopts an attitude of uncritical meditation and follows the sequence of associated ideas as they appear, rejecting none of them, however painful, objectionable, or absurd they may seem to be. In the case of dream-interpretation, the separate sections of the manifest content are taken as the independent starting-points for these chains of "free" associations; in the case of a psycho-neurosis the symptoms serve the same pur-

¹ P. Janet, "Psycho-analysis," Seventeenth International Congress of Medicine, London, 1913, Section xii., 13-64. See especially p. 26 for the point here raised.

pose. It is important to realize that these chains of ideas are not truly free or aimless associations. When, by adopting the attitude of uncritical reverie, the patient succeeds in freeing himself from "consciously purposeful mental activity" (*bekannte Zielvorstellungen*), his mind does not cease to be purposive, but is now dominated by "unconscious trends of activity" (*unbewusste Zielvorstellungen*), which determine what ideas shall rise to consciousness. The ideas which in this way are eventually reached are found to allude to, if not to form an integral part of, a system of preconscious thoughts which had by transference been dragged into the unconscious and which constitute the interpretation of the dream or the psycho-neurotic symptom, as the case may be. The process of psycho-analysis, by bringing these thoughts once more under the control of the preconscious, *ipso facto* brings about the resolution of the hysterical symptoms and the cure of the patient. It is in this sense that we are to take the dictum of Breuer and Freud that "solution and treatment go hand in hand."¹ The course of treatment is as a rule a lengthy one and makes considerable demands upon the tact and energy of the physician, since the trains of associations are being continually interrupted by "resistances" which the patient is unable to cope with single-handed, despite his best intentions, and it is only with the aid of persistent urging on the part of the physician that the hindrances are overcome and the ideas again continue to flow. In order that the cure may be complete the patient must be able to live again through the intense emotions attached to the repressed ideas and direct them upon the person-

¹ *Op. cit.*, 83

ality of the physician. This indispensable cathartic process is known as "abreaction" (*Abreagierung*).

IV. WORD-ASSOCIATION METHOD.

The well-known "word-association method" of C. G. Jung is very useful as an adjunct of psycho-analytic procedure, and in the case of some of the psychoses is the only suitable method. It serves to indicate the principal unconscious "complexes," i.e. systems of repressed and emotionally tinged ideas, from which the patient is suffering. The clearest and most frequent sign of the existence of such a complex is: (1) *a prolonged reaction time*; but it should not be forgotten that there are other "complex-indicators" of equal importance. These are (2) *a failure to react*; (3) *an over-reaction*, giving more than is asked for, many words, with supplementary explanations, instead of one; (4) *a repetition of the stimulus word*; (5) *an identical word-reaction to the most varied stimulus words*; (6) *a superficial association*, especially if combined with a prolonged association time; (7) *a meaningless reaction*; (8) *an assimilation of the stimulus word*, where it is misread, misunderstood, or taken in an unusual sense under the influence of the complex, being thus "assimilated" to the complex; (9) *a failure in reproduction*, the patient giving a different reaction-word on a second presentation of the stimulus-word, although asked to reply if possible with the same word as before. The chief theoretical interest of Jung's work on association is that he has succeeded in giving an experimental proof of the validity of the main assumptions upon which Freud's psycho-analytic technique is based.

A Case of Extensive Amnesia of Remote Date cured by Psycho-Analysis and Hypnosis.

The following case illustrates the use of the word-association method, combined with hypnosis, in clearing up a hysterical loss of memory:—

On April 24, 1913, the patient, a man aged thirty-eight and married, was brought into King's College Hospital suffering from the effects of a fainting fit, which had followed upon the strain of giving evidence as plaintiff in a law suit. Dr. W. Aldren Turner examined him and came to the conclusion that he was suffering from functional amnesia or loss of memory, and invited me to undertake the further investigation of the case. The patient's history showed a series of lapses of consciousness on different occasions, following on periods of mental stress and entailing a dimness or slight loss of memory for events immediately preceding the attacks.

1. At the age of two and a half years he fell from a linen basket, carried by a nurse-girl on her head, upon the stone floor, with resultant bleeding at the mouth and concussion.

2. In 1893 (aged eighteen) he fainted in his office, and showed a slight loss of memory upon recovery.

3. In 1896 (aged twenty-one) he went down to stay with his prospective father-in-law at S——, and was found in the bathroom unconscious. He was ill in bed for a week. His memory for this event was very vague.

4. In 1900 (aged twenty-five) his really serious loss of memory occurred. One evening towards the beginning of February while taking off his boots he suddenly became unconscious, and on regaining

consciousness it was found that he had entirely lost his memory for all the past events of his life since September, 1897, that is, for a period of two years and five months. During the two or three months just before this attack he had been greatly worried and overworked fighting the directors of a company of which he had been appointed manager.

He was taken to a well-known nerve specialist, who advised rest and complete change of occupation, and up to the time of undergoing treatment from me during May, 1913, he had almost completely failed to recover any of these lost memories. When I saw him the last thing he could remember prior to his amnesic period was attending a friend's wedding in September, 1897.

I interviewed his wife and mother, and obtained from them as full details as possible of his past history, and especially of the events occurring between September, 1897, and February, 1900. According to his wife's statement, this period of memory loss corresponded exactly with the time during which he had been concerned with the business scheme which had caused him so much worry those few months just preceding his loss of consciousness in February, 1900. As manager of a certain company, he had come into conflict with the directors, who were missionaries, mainly because of his disinclination to mix business and religion. He was also especially antagonistic to a man, whom I will call X., who had been brought in as secretary, and was continually interfering with his plans. Another man towards whom he felt intense aversion was the managing director, Y., who towards the end threatened that he would have the patient's name "erased" from the door as manager. His wife

told me that this did eventually happen, just before his loss of consciousness in February.

He was married in June, 1898, and lost his memory for this event with the others.

When he loses consciousness he falls and remains unconscious for about half an hour. On coming to, he stretches and complains of cold, and later on goes to sleep. His father suffered from similar attacks, and on one occasion was aphasic for an hour.

The patient on seeing me referred at once to the attack of 1896 as probably having something to do with his more serious attack of amnesia in 1900, and volunteered the information that he had been greatly worried just about that time by the serious business troubles of his father, which he explained to me in some detail.

In his last attack in April, 1913, he had amnesia for the events of the previous two or three months, but this disappeared almost immediately.

The history of the case suggested showed pretty clearly that it was one of hysteria, with occasional hysterical attacks. On the base of the results of a preliminary psycho-analysis I formed the theory that the lost memories included a *worry complex* which had become so disturbing that it was *repressed*—that is, the mind turned mechanically away from it, taking advantage of the temporary lapse of consciousness to do so, or perhaps the worry itself joined forces with an innate or acquired cerebral feebleness to bring about both the unconsciousness and the amnesia.

This complex had carried with it all other memories relating to the same period of the patient's life. If this unconscious complex could be once more

dragged up into consciousness, it would lose the power it at present had of disturbing the mind, and the patient would then be less liable to such attacks in the future, since at present the unconscious memories formed a centre of attraction, and tended to drag down later memories connected with worry of a business nature.

Psycho-analysis, in the form of word-association tests, was tried for three days. All the association times were longer than normal (normal = one to two seconds), but some were especially so, being as long as twenty to thirty seconds. These were the associations given with the stimulus words that bore upon the submerged business worry. Only one or two vague memories were recovered by this means, but from a scientific point of view the results were interesting.

On Wednesday, May 14th, I put the patient into the *hypnoidal state* (using a metronome), and gained the memories from September 1897 to Christmas 1897.

On Friday, May 16th, I tried *hypnosis*. The patient lost consciousness in two minutes, and proceeded to give a detailed account of whatever part of the amnesic period I chose to ask him about. His memories were in many cases charged with strong emotion, and, as he himself remarked, they seemed to be those of yesterday. After he had talked for three-quarters of an hour I gave him the post-hypnotic suggestion that, after waking up, when I should say to him, "Now, you remember all that you were describing to me in that chair just now, and will continue to remember them," he would remember them. I then woke him up, and he remembered nothing of what had taken place during hypnosis; but when, ten minutes later, I said the

words just quoted, he sat up in his chair, looked at me in a surprised and somewhat startled way, and remembered everything.

On Saturday, May 17th, he still retained these memories, but now experienced a difficulty in realizing that he had ever been without them.

On Monday, May 19th, I psycho-analysed him with the same words that I had used previous to the hypnosis, and now got very different replies. The hypnosis had evidently broken down much of the previous *resistance*, but an interesting point was that this second psycho-analysis succeeded now in overcoming still other resistances, thus seeming to conflict with Freud's view that hypnotism, while overcoming some resistances, increases the stubbornness of those which it does not succeed in subduing.

In the accompanying table (p. 80) are given a few selections from the psycho-analytic results obtained with "significant" words.

Many other associations were equally significant, but for reasons of confidence cannot be quoted here. The results carry their own explanation with them, and confirm the theory which I had formed at the commencement of the treatment. The analysis of the patient's dreams pointed to the same conclusion. The general impression that I gained while treating the case was that psycho-analysis prepared the patient's mind for hypnosis, and made the latter much easier of attainment than it otherwise would have been, and that a combined method of treatment, in this order, is far superior to the use of either separately.

The treatment seemed to do the patient good, quite apart from the actual recovery of his past memories. His mind had obviously gained in stability

and placidity, and he left the hospital on Friday, May 23rd, apparently cured.

The relation of psycho-analysis to hypnotism is a problem of great interest, which I am inclined to think is still awaiting solution, despite the claim to a satisfactory understanding of it made by the Freudians. Ferenczi¹ has carried out psycho-analyses of patients whom he had previously treated by hypnotism, and considers that the results confirm Freud's view that in hypnotism unconscious sexual tendencies of the patient are "transferred" from their original object, the parent, to the person of the hypnotist. "Hypnosis is a special form of artificially increased *suggestibility*," and suggestibility is nothing more than the survival in the unconscious of the child's readiness to believe blindly and obey uncritically those whom it loves. Now, since the symptoms in hysteria are likewise perverted satisfactions of psycho-sexual wishes emanating from the infantile unconscious, it follows that the removal of such symptoms by hypnosis or by the milder forms of suggestion is merely a case of replacing them by another symptom, viz. "psycho-sexual dependence upon the physician." For this reason hypnotic cures are so seldom permanent. Psycho-analysis, on the other hand, avoids this unsatisfactory result by dragging up the psycho-sexual tendencies into consciousness, so enabling the patient to understand their true nature and to "sublimate" them, i.e. direct them to useful social activities.

Janet considers that the attachment of the patient

¹ Ferenczi, "Introjektion und Uebertragung," *Jhrb. f. psychoanal. u. psychopath. Forsch.* 1909, i. See also Ernest Jones, "The Action of Suggestion in Psycho-therapy," *Journal of Abnormal Psychology*, December, 1910, v.

to his physician, upon which this theory is based, is not to be so simply explained. He writes : " Cet attachement se présente de bien des manières différentes et semble dépendre de phénomènes psychologiques très divers dans lesquels interviennent suivant les cas des suggestions, des aboulies, l'incapacité à conclure par soi-même, le besoin d'être compris, le besoin d'être dirigé et surtout le besoin d'être excité si important chez les désprimés." ¹ Only on the assumption that every form of docility is sexual in origin can Ferenczi's theory lay claim to truth. This question of suggestion and transference will receive further consideration later. In addition to this a number of outlying questions of great importance remain to be answered. For example, what is the cause of the remarkable broadening of the field of consciousness and improvement of memory that occur in the hypnotic state, prior to any suggestions made by the hypnotist? In the case just described of an extensive amnesia of thirteen years standing—the loss of memory covered the period from September, 1897, to February, 1900—almost all the essential memories reappeared directly the first hypnotic slumber had been induced, without any special prompting from myself. I had, during the previous fortnight, plied the patient repeatedly with word-association tests without much apparent success, but am inclined to think that this treatment acted as a very powerful predisposing influence towards hypnosis, since the patient, who had never been hypnotized before, and had repeatedly expressed great scepticism as to any one, myself included, being able to hypnotize him, went into the hypnotic trance with complete loss of primary consciousness

¹ P. Janet, *op. cit.*, 38.

in about two minutes. Moreover, in the course of the word-association tests he frequently forgot the stimulus-word, and sometimes also the reaction-word, immediately after replying. This suggests a close relation between the state of hypnosis (before any suggestions have been given) and the state of mind during psycho-analysis—a relation which has not escaped Freud's notice, for he writes (of psycho-analysis): "As may be seen, the point is to bring about a psychic state to some extent analogous as regards the apportionment of psychic energy (transferable attention) to the state prior to falling asleep (*and indeed also to the hypnotic state*)."¹ This resemblance is worthy of further investigation.

V. PHYSIOLOGICAL THEORIES.

The remarkable physiological manifestations often observed in hypnotized subjects also still await an explanation that will be completely satisfactory to the scientific mind. The Freudians may retort that these are identical in nature with the symptoms of conversion-hysteria, thus agreeing with the dictum of Charcot that "hypnosis is an artificial hysteria." But this does not help us much, for the wish-fulfilment theory merely indicates the psychical significance of these symptoms; the psycho-physiological or purely physiological changes which occur in the nervous system must form an integral part of any complete causal explanation. Freud is fully alive to this lacuna in his theory, though his disciples tend to push it into the background and often ignore it completely. He writes in reference to the inhibitory functions of the secondary process: "The

¹ *Traumdeutung* (Brill's translation, 85; italics mine).

mechanism of these processes is entirely unknown to me; anyone who wishes to follow up these ideas must try to find physical analogies and prepare the way for the visualizing of the dynamic process (*Veranschaulichung des Bewegungsvorganges*) in (the theory of) the stimulation of the neuron. I merely hold to the idea that the activity of the first psychical system is directed to the free outflow of the quantities of excitement, and that the second system brings about an inhibition of this outflow through the energies (*Besetzungen*) emanating from it, i.e. it produces transformation into dormant energy (*ruhende Besetzung*) involving a raising of the level."¹ He nowhere says whether his *Besetzungsenergie* is mental or physical, but we can hardly refuse to assume that it has at least a physiological correlate in the form of nerve-energy; and since he definitely states that the systems of the psychic apparatus have nothing psychic in themselves,² being analogous to the lenses of a telescope which produce virtual images corresponding to the objects of internal perception (i.e. psychical objects), it is only to the anatomy and physiology of the central nervous system that we can turn for further explanation.

Now, it seems to me that McDougall's interesting theories as to the physiological processes underlying psychical activity throw much additional light on the psycho-physics of inhibition, repression and symptom-formation.³ McDougall regards the passage

¹ *Op. cit.*, 475. I have made two slight alterations in Brill's translation.

² See p. 484.

³ W. McDougall, "The Seat of the Psycho-Physical Processes," *Brain*, 1901, xxiv.; "The Nature of Inhibitory Processes within the Nervous System," *ibid.*, 1903, xxvi.; "The State of the Brain during Hypnosis," *ibid.*, 1908, xxxi.

of nervous energy (*neurokyme*) across the synapses of the cerebral cortex as the physiological correlate of psychical process, and would explain inhibition as a secondary effect of the act of attending. In attending to one object or concentrating the mind on one form of self-activity, neurokyme is concentrated, raised to a higher potential, in a particular system of neurons, and by virtue of the lowered resistance of the intervening synapses *drains* energy from all neighbouring systems along collaterals which extend from their neurons to these synapses. McDougall supports this theory by numerous observations on the psychology of sensation and perception that are not easily explained in any other way. He regards the special inhibitory nerves connected with the autonomic nervous system as a primitive device which has been superseded by this more efficient mechanism in the course of evolution of the central nervous system. The repression of a mental tendency would thus correspond to a withdrawal of neurokyme from the correlated system of nerve-arcs ; and the resistance of the censor would correspond to an actual heightened resistance of synapses that divide the wide system of interrelated sub-systems functioning as the preconscious from that functioning as the unconscious. It is at least probable that Freud means by the censor something unconscious, for in his analogy of the telescope he compares it to the "refraction of rays in their passage into a new medium."¹

McDougall's theory will probably need much further elaboration and (possibly) modification to make it fit all the facts now known about functional diseases. That the altered conductivity of certain

¹ *Op. cit.*, 484.

synapses plays a decisive part in the causation of these disorders there can be little doubt. I recently had the opportunity of observing a case of hysterical *astasia abasia*¹ in a woman patient over forty years old, the immediate or occasioning cause of which was an operation for appendicitis. The woman had to re-learn, slowly and painfully, the art of walking which she seemed to have completely forgotten. But close observation showed that the chief feature of the symptom was a lack of co-ordinating power of a particular kind. Whereas in normal walking contraction of the flexor muscles is accompanied by automatic relaxation of the corresponding extensors, and vice versa, in accordance with Sherrington's law of reciprocal innervation, here contraction of both sets occurred simultaneously. The patient while putting her leg forward seemed at the same time to be trying to draw it back, and similarly with other movements.

Since normal reciprocal innervation is best explained by McDougall's theory as a reciprocal inhibition (this being caused by the drainage of innervation energy from the less intensely charged chain of neurons to the neuron-chain carrying the increased innervation necessary for the initiation of a movement), our case is one of functional disturbance of this mechanism in the form of altered resistances at the synapses. Paralyzes, contractures, and, in fact, all motor symptoms observable in hysterical patients, may be physiologically explained in exactly the same way. It is a short step from this to a similar explanation of sensory symptoms. Such explanation, of course, merely supplements, it does not exclude, a psychological interpretation in terms of "meaning," such as Freud gives.

¹ A functional inability to stand or walk.

CHAPTER V

THEORIES OF EMOTION

IN order to be able to see the psychological views of Freud in their true perspective, it will be well to consider the views of modern psychologists on the nature of emotion.

I. EMOTION AND INSTINCT.

“Emotion,” says Th. Ribot, “is in the order of feeling the equivalent of perception in the intellectual order, a complex synthetic state essentially made up of produced or arrested movements, of organic modifications (in circulation, respiration, etc.), of an agreeable or painful or mixed state of consciousness peculiar to each emotion. It is a phenomenon of sudden appearance and limited duration; it is always related to the preservation of the individual or the species—directly as regards primitive emotions, indirectly as regards derived emotions.” Although this definition is not entirely unexceptionable—there are, for instance, certain forms of sorrow, anger, etc., which are neither of sudden appearance nor of limited duration—it sums up most of the essential characteristics of emotion in a very clear way. At the base of every emotion there is an instinct or specific impulse, involving a definite adaptation of the muscular and vasomotor

systems, which is reflected in consciousness as a complex of organic sensations.

According to the theory of James and of Lange, as is well known, these organic sensations *are* the emotion. Without entering into discussion of this view, for it does not greatly concern us here, we may remark in passing that it is of physiological rather than of psychological interest, and contributes little, if anything, to the solution of the strictly psychological problem. Dr. W. McDougall's theory of the identity of emotion and instinct, in which the two are regarded as subjective and objective aspects, respectively, of the same process, is a suggestive hypothesis and more helpful as a basis of explanation. In McDougall's view, instinct is of wide significance and fundamental for any explanation of the mechanism of the mind. He defines it as "an inherited or innate psycho-physical disposition which determines its possessor to perceive, and to pay attention to, objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in regard to it in a particular manner, or, at least, to experience an impulse to such action." Waiving consideration of the difficulty that there are certain forms of human activity which, although possessing all the marks usually associated with instinct, viz. innateness, specificity (i.e. being characteristic of the species), relative fixity, are unaccompanied by any definable emotion, we may welcome the view as, at the least, a valuable attempt to do justice to the important position held by emotion among the fundamental bases of consciousness.

The tendencies of all the philosophies of the past, with the solitary exception of that of Schopenhauer

and his disciples, have been predominantly intellectualistic. In the view of many of their exponents, emotion was a mere hindrance to the free exercise of Pure Reason, or again, according to some, simply a form of confused thought. Such opinions cannot be too emphatically repudiated. The emotional life is certainly not subordinate to that of the intellect in respect to its origin, nor is it to be considered invariably so as regards its validity. It is in feeling that all *values* reside, and the life of feeling has a logic of its own, distinct from the logic of pure reason, and not necessarily inferior to it. Without going so far as to say, with certain modern psychologists, that feeling is invariably the controlling factor in its relation to thought, we must urge that much of the best and most effective thought is stimulated and sustained by underlying emotional tendencies, and that in many cases, if not in all, the action of feeling upon thought is very much more intense and decisive than that of thought upon feeling.

II. CLASSIFICATION OF EMOTIONS.

The classification of emotional states has not yet been completed with perfect unanimity by psychologists, but great strides have been made in quite recent years, thanks to the adoption of the biological or genetic method. The multiplicity of the emotions that can be distinguished by the adult consciousness and the resemblances to one another shown by many of them, suggest the view that these states may be classified under two headings, (1) primary or simple, and (2) secondary, derivative or complex, the emotions of the latter group being

syntheses, in the chemical sense of the word, of two or more from among the former group. We shall presently see that the relation is in some cases not quite so simple. However, the first problem is to determine the primary emotions. Four separate criteria have been suggested for use in this search :—

- (1) Observations of the *tendencies* of the emotions.
 “By their ends you may know them.”
 (A. F. Shand.) Here the underlying impulse forms the distinguishing mark of the emotion.
- (2) Order of appearance in the course of development of the child’s mind. (Ribot.) “We may count as primitive all those which cannot be reduced to previous manifestations, all those which appear as a new manifestation, and those alone ; all the others are secondary and derived.”
- (3) Presence of corresponding emotions and impulses in the higher animals, as displayed by their instinctive activities. (McDougall.)
- (4) Effect of mental disease, apart from mania, upon the emotions. Those emotions which appear, under such circumstances, in a greatly intensified form are probably primary. (McDougall.)

We may take McDougall’s list of these primary emotions as typical. It runs as follows :—

<i>Instinct.</i>	<i>Emotion.</i>
Flight.	Fear.
Repulsion.	Disgust.
Curiosity.	Wonder.
Pugnacity	Anger.
Self-abasement.	Subjection or Negative Self-feeling

<i>Instinct.</i>	<i>Emotion.</i>
Self-assertion or Self-display.	Elation or Positive Self-feeling,
Parental instinct.	Tender Emotion.
Sexual instinct.	} Anonymous Emotions.
Gregarious instinct.	
Instinct of acquisition.	
Instinct of construction.	

There seem to be certain innate connections between the psycho-physical dispositions of some of these instincts and emotions, viz. between Anger, Positive Self-feeling, Sexual Emotion and Tender Emotion. If we add to the list the non-specific tendencies of sympathy, imitation, suggestion, pursuit of pleasure and avoidance of pain, we have, according to McDougall, all the primary impulses which go to make up the tissue of the human mind.

An important variation of this scheme is to be seen in Mr. A. F. Shand's view that joy and sorrow belong to the list of primary emotions, and that tender emotion is complex, being, indeed, not a single emotion, but a class consisting of many varieties, such as pity, gratitude, reverence, aspiration, reproach, repentance, pathos, all of which involve a blending of joy and sorrow in different forms and different proportions. Sorrow is recognizable by its two-fold tendency "to maintain the presence or thought of its object" and to improve it or restore it. Joy, while also having the former of these impulses, "tends to maintain the object as it is, not to improve it." The close relation between these two seemingly so opposite emotions is expressed in the words of Shakespeare: "Grief joys, joy grieves, on slender accident." Both share the same tendency to cling to their object.

III. EMOTION AND SENTIMENT.

Complex or derivative emotions fall into two sub-classes, according as they arise (1) from the simultaneous activity of two or more of the primary emotional dispositions functioning in isolation from one another, or (2) from the activity of one or more of the primary emotional dispositions functioning as parts of a complex system of such dispositions centred about the idea of some object; in other words, functioning within a *sentiment*. Examples of the first are *admiration*, which is a binary compound of wonder and negative self-feeling, and *awe*, which arises from the blending of admiration with fear, and is therefore a tertiary compound.

Before giving examples of the second it is necessary to explain more precisely what is meant in modern psychology by a *sentiment*. If one considers the state of mind known as love or friendship for a particular person, one finds that it cannot be summed up as a definite momentary or prolonged emotion, but that it involves a large number of emotions, which differ according to the circumstances under which they are aroused. The departure or absence of one's friend arouses sorrow, his presence or return arouses joy, fear is experienced when he is threatened with injury or misfortune, anger is felt towards the person who inflicts the injury. Many other emotions may be aroused under other circumstances. These experiences can only be explained as the result of an organization of the psycho-physical dispositions underlying the individual emotions referred to, about the psycho-physical disposition corresponding to the subject's idea of his friend. It is sometimes stated that such emotional systems as these are not in

themselves modifications of consciousness, and that consciousness only accompanies the individual emotions when they arise. It seems to me that this view does not do full justice to the facts. Taking the terms love and hate in their widest sense, as expressing all degrees of liking and disliking for persons and things, it may be said with some plausibility (though the matter is not entirely free from doubt) that they comprise all the possible forms of sentiment. If now, I happen to hate a person, I not only feel joy at his absence, sorrow in his presence, anger towards those who are kind to him, gratitude towards those who do him an injury, etc., but over and above these individual emotions I find that all thought of the person is tinged with displeasure and a certain hardness and repulsion. When any one of the other emotions is excited, these feelings mingle with it. They are never absent from any experience referring to the person. Similarly, *mutatis mutandis*, with the sentiment of love. Here all the feelings and emotions are to be imagined changed into their opposites.

The doctrine of the sentiments was first stated in 1896 by Mr. A. F. Shand. It is undoubtedly one of the most important discoveries hitherto made in the realm of Emotional Psychology, since it furnishes the concept so badly needed, in terms of which to exhibit the systematic structure of the affective consciousness. Recently, Professor Ribot has described similar systems in his *Essai sur les Passions*, using the term "passion" to describe such states as gluttony, drunkenness, love of sports and adventure, the passion for gambling, avarice, ambition, hate, jealousy, the passions for art, science, politics and religion, patriotism, the passion for

morality, the collector's passion for engravings, books, etc., the love of pleasure. Ribot himself regards passion as a prolonged and intellectualized emotion dominated by a "fixed idea." This fixed idea is the object of the passion, and forms a centre about which, by the processes of association, dissociation, constructive imagination, and especially affective reasoning based upon judgments of value, the emotion becomes consolidated and endowed with stability. The passions which he enumerates, however, fall under the general headings of love and hate, in all cases except that of jealousy—as was recently pointed out by Shand. Now, jealousy is a prolonged emotion, rather than a passion or sentiment, and it may serve as the illustration of our second class of complex emotions, those aroused within some sentiment. It seems to be a compound of fear and anger, aroused within the sentiment of love, either sexual love, or love of fame, power, etc. In some cases, positive self-feeling is a prominent ingredient. It is improbable that this is all the truth about the emotion, for young children and even animals are prone to it.

In sentiment or passion, the individual emotions and desires, instead of merely competing with one another, as independent emotions do, are controlled by the system of which they form the constituent elements. The lesser are subordinated to the greater, so that all converge towards realization of the main end in view. The formation and growth of any particular passion are determined partly by external conditions—example, favourable circumstances, etc.—more especially by internal conditions, of which the temperament or, as it might be called, *mental diathesis*, is the most important. This special mental

diathesis it is which determines that,—in the case, say, of love of power—*joy* of a particular nature should be aroused on the first occasion of the object's presence, followed by sorrow and desire on its departure, which stimulate the subject to a pursuit of it. Success in the pursuit once more gives rise to joy. This general cycle of joy, sorrow, desire and renewed joy, by continued repetition, brings about the consolidation of the passion. Joy is the essential element.

One very important sentiment is the *self-regarding sentiment*. This becomes consolidated as soon as the consciousness of self has arisen in the child's mind. It may also be called self-respect. Respect for another person is "a sympathetic reflexion of his own self-respect," says McDougall. "We respect those who respect themselves." The organisation of a multiplicity of emotional dispositions within this system in the course of individual experience is the chief psychological condition of the development of volition. In cases where we seem to act "in the line of greatest resistance," to use James's phrase, the violent emotion and impulse of which we are intensely conscious are combated and defeated by the cumulative force of the organized emotional system which constitutes the personality.

IV. FREUD'S THEORY OF INSTINCT.

Freud's own views on instinct or impulse (*Trieb*) are given in his article on "Triebe und Triebchicksale¹" He distinguishes two groups of fundamental impulses, viz. (1) the ego—or self-preservative—impulses, and

¹ *Sammlung Kleiner Schriften zur Neurosenlehre*, Vierte Folge, 1918, SS. 252-278.

(2) the sexual impulses, basing this division upon his observation that in the "transference-neuroses" (hysteria and compulsion-neurosis) "a conflict is to be found between the claims of sexuality and those of the ego at the root of each one of such affections." He devotes no further attention to the ego-impulses in this article, but proceeds to illustrate his views on impulses and their fate with reference to the sexual impulses. The following is a summary of his views in his own words: "One may give the following account of the general nature of the sexual impulses: They are numerous, originate from various organic sources, exercise themselves at first independently of one another, and only later become united in a more or less complete synthesis. The end towards which each of them strives is the attainment of organic pleasure (*Organlust*); only after completed synthesis do they enter the service of the function of propagation, where they then attain to general recognition as sexual impulses. In their first appearance they are dependent on the impulses of self-preservation, from which they gradually free themselves, and also in seeking an object follow the ways indicated to them by the ego-impulses. A portion of them remains for a time associated with the ego-impulses and furnishes these with *libidinous* components, which are easily overlooked during normal functioning and first become evident through illness. They are conspicuous in that they can in great measure function vicariously for one another, and can readily change their objects. In consequence of the last-named characteristics they are capable of functions far removed from their original purposive activities (*sublimation*)."

The pairs of opposites, sadism-masochism and

sexual curiosity-exhibitionism, are examples of components of the sexual impulse. Sympathy is regarded by Freud as a reaction-formation against the impulse of sadism.

Enough has been quoted to indicate the great contrast between Freud's views and those of Ribot, McDougall and Shand. It will be observed that the former are not only rather vague and incomplete, but that they also suffer from lack of historical relationship with the work of expert psychologists.

PART III—PSYCHOTHERAPY

CHAPTER VI

FACTORS IN PSYCHOTHERAPY

THERE is no panacea in the treatment of the psychoneuroses. Different schools of thought may tend to emphasize one or other factor of cure, but there can be little doubt that these factors are many, and that a rational psycho-therapy should take account of all. Their relative importance and psychological relationships to one another can be finally decided only by reference to a scientific knowledge of the causes of this class of nervous disease. The theory that the nature of these causes is shown by the conditions of the cure is but a half-truth, and may be positively misleading in some cases. A much wider psychological analysis of the whole situation is needful to satisfy the demands of science.

I. RE-ASSOCIATION AND PSYCHO-CATHARSIS.

During the late war, out of the thousands of soldiers suffering from one form or other of psychoneurosis, it was possible to meet with many in which the conditions of the onset of symptoms were greatly simplified, and the results of treatment correspondingly definite and scientifically instructive. In other words, relatively "pure" cases occurred which showed the working of isolated psychological factors in a clear light. This was especially so with cases

treated in the field shortly after the moment of onset of their symptoms. In about 15 per cent. of such cases which came under my observation in France, a well-marked symptom was an *amnesia* of greater or less extent for events immediately following upon the shell explosion or other emotion-exciting incident which originated their illness. Accompanying this amnesia were functional symptoms of a physical nature—mutism, deafness, anæsthesias, tremors, paralyses, contractures, etc. I found at first that if I restored these lost memories under light hypnosis, the physical symptoms tended to disappear more readily—under the influence of rest, explanation, rational persuasion, etc.—than they did if the amnesia was left untreated. This general result illustrates the working of *re-association*, or *psycho-synthesis*, as a definite factor in psychotherapy, and agrees with the findings of Dr. C. S. Myers while working with similar cases. The re-integration of the mind increases its power to grapple with the physical symptoms. But I soon found that if I made a special effort to recall the accompanying emotion (fear) in all its original vividness and detail, along with the missing memories, the patient passed into a “second state,” in which he could speak (if he was previously mute), and was free from all his physical symptoms, just as he was at the time of the shell explosion. I would let him work off his emotional reaction of fear as completely as possible, and then wake him up from his light hypnosis, after first giving him the post-hypnotic suggestion that he would continue to remember what he had just re-experienced. Some cases cleared up less perfectly than others under this treatment, but in scores of cases the recovery was complete.

It would seem that the continuation of the symptoms was incompatible with the reinstatement of the original fear which had been their apparent cause. The patient had not had sufficient opportunity to work off his fear adequately at the time. The fear became bottled up, and could only show itself indirectly in the form of symptoms. This situation corresponds to those of the "retention hysterias" and "defence hysterias" first described by Breuer and Freud, and the psycho-therapeutic factor which removed the symptoms is that of *psycho-catharsis* or abreaction. The fear was worked off later, and so the symptoms were deprived of their underlying support. I have myself explained the mechanism in terms of re-association in a recent article,¹ but I am inclined to think that a further mechanism is involved, viz. an actual persistence of a past emotion in the unconscious, under certain conditions of mental conflict and repression.

By experiments on some of my hypnotic patients I have satisfied myself that the emotions of early life, even those of the first two years, can persist, and be recalled in their original form under hypnosis.

The above results were obtained by means of light hypnosis, but I do not wish to over-emphasize the importance of this method in psychotherapy. Where gross amnesias of a hysterical nature occur, as in so many war cases, it is the most rapid and satisfactory method of clearing them up; but in other cases it should not be used. One very rarely has occasion to employ it in civilian practice. Here waking suggestion, persuasion and mental analysis suffice.

¹ "Hypnotism, Suggestion and Dissociation," *British Medical Journal*, June 14, 1919. See also next chapter.

II. HYPNOTISM AND SUGGESTION.

In my opinion hypnotism and suggestion do not coincide. All men are more or less susceptible to suggestion, but hypnotism is something more definite than this. It involves a definite dissociation, and the state of hypnosis is a "second state" (which is not *always* a state of increased suggestibility), and corresponds to the condition of the hysteric. Among the hundreds of hysterics whom I treated during the war, I found that the degree to which they were hypnotizable corresponded with the degree of their hysteria or dissociatedness. As they became cured they became less hypnotizable, although they retained a certain amount of suggestibility.

Dr. W. McDougall dissents from this view, and finds "that a large proportion of normal persons can be hypnotized, and that [his] patients remain hypnotizable when cured."¹ I cannot help thinking that he is here using the word hypnosis where I would use the word suggestion. I would add that I certainly do not adopt the "domineering attitude," as he calls it, when hypnotizing patients. Quite the contrary. I ask them to relax their muscles, fixate a bright object for a short time, and think of sleep. I do not even mention the word hypnosis. Moreover, the submissive attitude is certainly not sufficient to ensure hypnosis, as he seems to imply in his paper. One meets with patients who are exceedingly anxious to be hypnotized, and are exceptionally submissive, but who have been unable to reach the hypnotic state.

One can artificially increase the suggestibility of

¹ W. McDougall, "A Note on Suggestion," *Journal of Neurology and Psycho-pathology*, i, May, 1920.

most normal people by appropriate means, but to my mind this increased suggestibility is not *eo ipso* hypnosis. On the other hand, when the memory continuum of the patient is broken across in hypnosis we have a psychological phenomenon quite distinct from that of suggestibility, and calling for a distinct explanation. Dr. McDougall has himself given us a most interesting explanation of it in terms of physiological dissociation.¹

III. AUTOGNOSIS.

A psycho-therapeutic factor closely akin to re-association is the process whereby the patient gains an ever-deepening insight into the exact nature of his mental condition. It is a complex psychological process in which the patient endeavours to obtain an objective view of his own mind, its past development, present condition, and strivings towards the future, so far as his symptoms are concerned. It is more than a mere intellectualizing of the mind—although this is a very important element—since it stimulates and purifies that power of intuition or direct insight as regards psychological matters which all men possess to a greater or less degree. Schopenhauer has made the statement that “genius is simply the completest objectivity.” In a less degree, objectivity is a condition of mental health or sanity in all men. I have suggested the term *autognosis* (self-knowledge) for this process. In practice it takes the form of long talks between the physician and the patient, in which the latter is encouraged to describe as minutely as possible his exact feelings and thoughts

¹ W. McDougall, “The State of the Brain during Hypnosis,” *Brain*, xxxi, 1908.

at the time of the outbreak of his symptoms and just before, and also his present mental condition, his hopes and fears for the future, his regrets for the past. He is then led backwards in memory, and encouraged to discuss emotional memories of the past, especially those where he failed to adapt himself adequately to his physical and social environment. In this process he will from time to time display emotion of one kind or another, and give the impression that he is completing the emotional reaction to a past situation to which he had not had the opportunity of reacting adequately at the time. This is the factor of psycho-catharsis to which we have already referred. He is also encouraged to look at his wishes, longings, interests, ambitions, and personal relations with others from all points of view, to adjust them to one another, to seek out and eliminate contradictions, etc. It is this kind of intellectual work that strengthens the healthy part of his mind and cuts the ground from under his symptoms. His dreams may also be analysed, and will be found to throw light upon his memories of the past and his aspirations for the future, as well as upon the difficulties of the present.

The method differs from psycho-analysis in all its forms, in that the theories and presuppositions of the psycho-analytical schools are not necessarily involved. It includes education in its literal sense—a drawing out of latent powers and ideals—and an element of suggestion springing from the affective bond of mutual interest between patient and physician—a form of suggestion which is *not* incompatible with the patient's self-reliance.

The autognostic method is applicable to all forms of psycho-neurosis, and should be used with all,

even if symptoms have already been removed by other means. In *a certain class of cases* it may give findings that correspond with the theories of psycho-analysis. In such cases it should, of course, be called psycho-analysis, and make use of whatever Freudian conceptions the treatment demands for intelligibility and therapeutic success. But in many cases this result does not occur. To use a metaphor from mathematics, the findings and results of autognosis are to those of psycho-analysis as the properties of the general conic are to those of the circle.

IV. "FREUDIAN" CASES OF ANALYSIS.

I would call a case a Freudian one when its analysis brings to light very early memories of excessive interest in the excretory functions, of sadism, masochism, exhibitionism, etc., which have subsequently given rise to mental conflict followed by repression. From my personal experience with patients I can confirm the existence of such cases. The analysis is usually a very protracted one, extending over many months, and showing strong "resistances," which have to be overcome by persistent urging on the part of the physician. Dreams give important clues, and provide invaluable material for the analysis. In fact, dream-analysis may form more than three-fourths of the entire analysis. I have recently analysed a patient suffering from an obsessional fear of infection. This phobia had grown more and more oppressive, extending to more and more objects, so that she was forced to devote a very large part of her time and energy to washing and to other precautionary measures. In the course of the analysis, especially in the dreams, thoughts

of lavatories, etc., eventually began to recur persistently, and at long last it became manifest that she had in early life experienced inordinate interest in excretions, from which she had failed to free herself in later years, despite great effort. The interest had persisted in great strength in her unconscious, and her conscious efforts at self-defence or repression had taken the form of an ever-extending phobia of infection. The phobia did not appear until the age of puberty, and even then was not very pronounced. Ten years later a hopeless love affair coincided with a nervous breakdown, in which the phobia appeared in great force as the main symptom.

She at first feared carrying infection (tuberculosis) to this particular person. Later on the fear became more generalized. The improvement produced in this patient by means of the analysis was partly due to the autognostic factor whereby she had gained an objective view of her own mentality, and replaced a false (and alarming) view of her illness by a sane and rational one.

In other Freudian cases the roots of the psychoneurosis are found to be early memories of intense affection for the parent of the opposite sex and concomitant jealousy towards the parent of the same sex (Edipus complex). I can illustrate this by another of my own cases. The patient was an unmarried lady who had suffered ever since the age of puberty from an impulse to kill, as well as from other minor impulses of a criminal nature. For more than twenty years she had struggled with this illness, giving herself up to many kinds of mental treatment—suggestion, rational persuasion, etc.—but all in vain. Several doctors had tried to hypnotize her, without success. She came to me hoping that I

would be able to do so. I found her very suggestible towards me, but not hypnotizable. I treated her by means of psycho-analysis, and after forty hours her symptoms had completely—and apparently permanently—disappeared. She had always been exceedingly fond of her father, now dead, and could remember her mother saying to her when she was quite small, “ You are trying to steal father from me.” In the course of the analysis she eventually seemed to remember a night, at the age of five or six, when she slept in the same bed with her father. On waking up the next morning she had a feeling as if something had happened to her in the night. At the age of thirteen her symptoms broke out. Some years later she noticed on going one morning into her father’s smoking-room that a murderous hatred suddenly boiled up within her. She attributed it to her obsession, and was horrified by it. Before that moment the obsession had not referred to her relatives. The feeling disappeared, and did not return, although when her father was on his death-bed she had an obsessing fear lest she might do him an injury. When she had brought herself to confess to me the early “ memory,” all her neurotic impulses disappeared at once, as if by magic, and she broke off the analysis, as she had to return home. But she found the symptoms back again a few days later, as I had expected, and she came to me once more. Further analysis showed that she had transferred to me the feelings of affection that she had felt towards her father, and had then repressed them a second time. A few hours’ talk sufficed to overcome this second repression and the symptoms once more disappeared. As far as I know, the cure is now a permanent one. I feel little doubt that

the early "memory" which she seemed to recall was really a "phantasy," having psychical reality, but no reality in the outside world. I explained this possibility to her, and she found that she could accept it. The phantasy corresponded to her repressed sexual feelings, and illustrated the working of the factor of *regression*. In her own view her impulse to murder referred to her father, not to her mother. There is much more that I might say in further explanation of this case, but I content myself with this short summary, as my main object here is to show that the facts upon which Freud bases his theory of psycho-analysis do admit of verification in certain types of patients. Whether his *Libido Theory* can hold its ground as a general theory true alike for normal and abnormal psychology is a question that has yet to be decided. Even this case does not fit in entirely with his theory. The factor of *transference* which it appears to illustrate is not entirely clear, and needs further discussion.

Closer inquiry showed that the transference occurred at the very first interview. Apparently, it was a transference of the feelings which she had had towards her father in early youth. So, according to Freud, she should have recovered completely as soon as that early memory had been brought up and worked out as we described. But this did not happen. Freudians might say that the case was really more complex, that it was probably one of "sadistic anal-eroticism." But this was not so. I continued the analysis later to see if it was. It was not that. I had still to deal with the transference after the Oedipus complex had been uncovered. So that the case presents a situation slightly different from the Freudian one. The

patient showed herself to be exceedingly suggestible throughout the analysis, although I should add that her early "memory" was certainly not suggested to her in any way by me, as it was a great surprise to me. I was at that time very sceptical about Freud's sexual theory, although trying to preserve an unbiassed mind. The one thing that I did insist upon, as I of course always do in psycho-analysis, was that the patient should tell me everything that came into her mind.

V. TRANSFERENCE (UEBERTRAGUNG) AND SUGGESTION.

It is often stated by Freudians that they do not undertake educational work with their patients, and that they do not suggest things to the patient. They simply leave him to find his way out of his difficulties himself. But this is not really Freud's view. According to him, transference is essential in bringing about a cure. Indeed, it is on this basis that he differentiates between hysteria and compulsion neurosis on the one hand, and dementia præcox and paranoia on the other. In hysteria and compulsion neurosis one gets transference, and one can cure the patient; but in dementia præcox and paranoia one does not get transference, because the libido is fixed on the ego, the patient loves himself, and himself only, in a libidinous way. This narcissism, as libidinous self-love is called, prevents one getting hold of him and helping him at all. The former neuroses are classified as "transference neuroses," the latter as "narcissistic neuroses," or "paraphrenia." One weakness of the recent theory of narcissism is that the Freudians cannot

there point to cure, as they have been able to do in the case of hysteria and the compulsion neuroses. The factor of cure is, to my mind, fundamental, not only from the patient's point of view, but theoretically. If one cures one's patients, it is to a certain extent confirmatory evidence of the truth of one's theory. In the absence of cure, doubt is justifiable.

Freud's method is, it is true, to get the patient to say everything that comes into his mind, and as it comes into his mind. But the affective *rapprochement* of doctor and patient determines both what does come into the latter's mind, and also the extent to which he can communicate it.

Let me quote Freud's own words : " If the patient has to fight out the normal conflict with the resistances which we have discovered in him in the course of the analysis, he is in need of a powerful motive force to influence the decision in the sense, desired by us, leading to recovery. Otherwise it could happen that he might decide for a repetition of the previous result, and let that which has been raised into consciousness slip back into a state of repression. The deciding factor in this fight is then not his intellectual insight—which is neither strong enough nor free enough for such a function—but *solely his relation to the physician*. So far as his transference is of a positive nature, it clothes the physician with authority, and transforms itself into faith in his statements and views. Without such transference, or if the transference is negative, he would not for a moment let the physician and his arguments come to a hearing." ¹

¹ *Vorlesungen zur Einführung in die Psychoanalyse*, 1918 p. 522. Translation and italics mine.

I am not claiming that analysis involves suggestion. The two mental processes are quite distinct from one another. But I am contending that the method of psycho-analysis, even when carried out according to the strictest rules of the Freudian school, does involve suggestion in the form of transference, and, further, that unless positive transference occurs the method is powerless to effect a cure.

Yet another quotation from Freud will throw further light upon this situation. He writes: "Assuming that we have succeeded in clearing up the case satisfactorily by the production and resolution of a strong father-transference upon the physician, yet it would be a fallacy to conclude that the patient had previously suffered from such an unconscious fixation of his libido upon his father; the libido of the patient has been led thither from other positions."¹

One may admit that all transference is suggestion. But this proposition is not convertible. One cannot say that all suggestion is transference. Suggestion works in the very first days of life. Modern nurses know that babies two, three or four days old can be trained to good habits. One can train a baby less than a week old to habits of cleanliness, and as a result the excretory functions will be carried out automatically, under fixed conditions. This is not done by transference, but it is done by suggestion. The young child is suggestible simply because it has not all sorts of other ideas and thoughts to bring up against the suggested idea or action.

Older children, up to the age of fourteen or fifteen years, can be successfully treated by suggestion, ex-

¹ *Vorlesungen zur Einführung in die Psychoanalyse*, 1918, p. 535.

clusive of analysis, without relapse. Bad habits, such as enuresis and masturbation, hardly ever fail to clear up completely by this method alone. In hundreds of cases of hysteria in grown men during the war suggestion has produced complete cure without relapse. Nevertheless, the autognostic method should also be used with suggestion cases, as with all others, to *ensure* against relapse.

In my view, the psycho-analytic method of free association is extraordinarily potent in increasing the patient's suggestibility. Nor is this surprising. The patient lies on a couch, or sits in a chair, waiting for ideas to come up. Is not this the state of mind which one tries to produce when one hypnotizes? Indeed, Freud explicitly admits it. He says that the state of mind in the method of free association is similar to the state in hypnosis. However little the analyst may say, he cannot avoid influencing the patient. Silence is often a more powerful suggestion than any speech, and unconscious suggestion is all the more deadly because of its unconsciousness. It is all very well to say that the analyst is on the look out for this, and analyses it and brings it to the light of day. I do not believe that this is entirely possible.

We may sum up our views on treatment by saying that there are four fundamental and relatively independent psychic factors at work in the cure of mental illness. They are: *psycho-synthesis*, *psycho-catharsis*, *autognosis*, and *the personal influence of the physician (suggestion)*. The last of these four is of the utmost importance, since it is a determining condition of the effective working of the other three factors.

CHAPTER VII

THEORETICAL VIEWS ON EMOTIONAL REVIVAL

IN view of the prominence given to psycho-catharsis or abreaction as a psycho-therapeutic factor in the preceding chapters, it would be well for us now to consider the "rationale" of this method—the kind of hypothesis that would best harmonize it with the generally accepted principles of psychology.

When, by light hypnosis, we recall lost memories with emotional vividness in war-shock patients, can we say that the emotion the patient experiences under hypnosis is identical with the emotion that he felt, or began to feel, at the time of the mental shock? A possible alternative is that the circumstances of the original shock are brought back so vividly and cognitively to his mind under hypnosis that they again arouse an emotion of fear, but an emotion which is a present emotion, which may be less intense, but quite possibly may be more intense and of different quality from that which he originally experienced, or began to experience. According to the James-Lange theory of emotion this latter explanation would be the more probable one. The adherents of this theory might hold that a complex of visceral and other sensations are aroused at the time of the hypnosis through the mediation of the cognitively-revived experience, and so form

the present emotion. But psychologists find it impossible to accept the James-Lange theory, since an emotional experience is always more than a sum of organic sensations, in that it involves a reference, vague or explicit, towards some object, in the psychological sense of that word. All the evidence quoted from pathology in favour of the theory—from cases of visceral anæsthesia on the one hand and heightened emotionality on the other—equally fails to prove the absence of this subject-object relationship in any single case. The body acts as a sounding-board for remembered emotion, and may be essential to the original production of emotion; but that is another matter.

Hypnotic experiments in the revival of early memories of childhood seem to confirm one in the view that the emotional tone of the individual experiences is retained in the mind in the same way in which those experiences themselves are retained, so that, although the mind becomes more and more complex in various ways in course of time, and various experiences, that later on leave their traces in memory, interact, as it were, with one another, and produce more complex mental formations, there is at least a continuous thread of actual experience being deposited in memory from moment to moment, like the successive photographic views on a cinematograph ribbon, and these early memories with their affects can be revived in the exact form in which they were originally laid down as the mind passed beyond them to new experiences. I will quote one case to illustrate what I mean. In one of my patients I recalled under hypnosis the events of his sixth birthday. He proceeded to live again through the exact experience. His face

lighted up with joy as he saw the birthday presents that his father and mother had given him. A moment later he commences to weep bitterly, because he remembers that his little sister is very ill upstairs, and that the doctor has just been. A fortnight later, when testing his memory for other early events, I inadvertently suggested once more the revival of those of his sixth birthday, forgetting that I had done so before. He went through exactly the same experiences, his emotion of joy giving place later to the emotion of desperate grief. The two revivals were practically identical. Here it seems as if the two different emotions were integral elements in the successive memories, and that they were certain to come up if the memories were revived in their ideational completeness. I have quoted similar instances of revival in Chapters I and X.

As against facts like these, we find instances where, at one time, an early emotional experience can be revived cognitively in great detail without the accompanying emotion, whereas, on other occasions, the same attempt at revival inevitably re-arouses the emotion as well. We must assume here, either that our cognitive memories form systems of mental dispositions linked up with, but nevertheless relatively independent of, other mental dispositions corresponding to the different primary and secondary emotions, as Dr. W. McDougall suggests in Chapter III of his book on Psychology (Home University Library), or else we must assume that the cognitive revival without emotion has simply been incomplete revival, and that, if the revival had been sufficiently detailed, had possessed hallucinatory vividness, the emotion would have been revived simultaneously. I hold the latter view.

In certain cases of emotional memories one finds, as a matter of experience, that there does seem to be an over-burdening of the memory with emotion, and that this excessive emotion can be worked off by revival, with relief to the patient's mind. If the same emotional experience is again aroused later, he no longer shows such excessive emotional reaction.

Freud has likened emotional energy (libido) to an electric charge, which can spread over the surface of a body, and can shift from one part to another ; emotional energy, in a similar manner, shifting from one memory to another, becoming changed into anxiety under the effect of repression, or gaining physical outlet in emotional reaction, muscular, visceral and vasomotor.

McDougall's theory of the structure of the mind and his hypothesis of different mental dispositions, of cognitive knowledge on the one hand and the various emotions on the other, gives us a different view of the psychological situation. According to his view one can indeed understand the therapeutic results of sublimation, where emotional dispositions, that have originally found an outlet through association with certain sets of cognitive dispositions, can later on become associated with other cognitive dispositions, and function in connection with them to the partial or complete exclusion of the former cognitive dispositions.

As regards the simpler phenomenon of "ab-reaction," I have myself suggested a similar explanation, which I stated as follows : " It seems to me that we have a two-fold dissociation in these cases (shell shock of hysterical type). In the first place the shock of the shell explosion has produced a

dissociation from the patient's personal consciousness of certain psycho-physical functions together with the memories linked with them immediately after the shock. But a second dissociation has also occurred, viz. that between the psychical (I should have written "psycho-physical") and physical counterparts of the emotional reaction of fear. The physical counterpart then persists instead of being evanescent. The first dissociation has to do with the central nervous system, the second has to do with the sympathetic. Revival of emotion with hallucinatory vividness, soon after the original shock, abolishes the second dissociation as well as the first, and so brings the physical manifestation of the emotion again under the sway of the conscious personality."¹

But although such associational theories are as far as we can go on the psycho-physiological plane of explanation, psychologically we are forced to recognize the great therapeutic effect produced by the *intellect* in the analytic review of past memories, especially in the analytic treatment of what have been called "anxiety states," where the patient is helped and encouraged to look at past events from a more impersonal point of view, and so to obtain a deeper insight into their mutual relations and intrinsic values. The method, which I have called the method of *autognosis*, does produce a readjustment of emotional values among the patient's past memories. These memories are all scrutinized from the point of view of the patient's developed personality—or rather of his ideal of personality so far as it becomes revealed in the course of the analysis—and the

¹ "Hypnosis, Suggestion and Dissociation," *British Medical Journal*, June 14, 1919

relative autonomy that some of them had previously enjoyed by virtue of their emotional over-emphasis is withdrawn from them. The progress is one from a state of relative dissociation to a state of mental harmony and unity. The "abreaction" of excessive emotion here is no merely mechanical process, but is controlled at every step by the principle of relativity and intellectual adjustment. It may be theoretically subsumed under the factor of *re-association*, but only if the latter is taken in a more profound sense than the mere restoration of the broken memory continuum.

In the abreaction of repressed emotional memories we have the further factor of "removal of the repression." That is to say, the mental energy previously needed to keep up the repression and to hold the painful memories at arm's length is now placed once more at the disposal of the personality, to be used in more profitable ways.

The views set out above may appear more intelligible in the light of Bergson's theory of memory and of the relation of mind to brain, to which I closely adhere. This will be the subject of our final chapter.

PART, IV—LESSONS OF THE WAR

CHAPTER VIII

THE PSYCHO-NEUROSES OF WAR (I)

WHILE in charge of an advanced neurological centre in France during the period November, 1916—February, 1918, I had to deal with between two and three thousand cases of psycho-neurosis (neurasthenia, hysteria, and psychasthenia), and in the following paragraphs I will endeavour to give, in broad outline, a general view of the methods of treatment which have seemed to be most useful, and a statement of certain statistical results. The great majority of cases came under my care within forty-eight hours of their breakdown, and I was able to return 70 per cent. of them to the line after an average of a fortnight's rest and treatment in hospital. Of course, certain individual cases needed a longer rest in hospital, up to two or three months. I feel sure that this success was due more often to *prevention* than to cure. By seeing so many of these light cases so early I was able to *prevent* the development of further hysterical symptoms which would otherwise have taken place.

Essential Factors in Causation and Treatment.—It is important that the patient should have the benefit of a thorough examination of his nervous system at the earliest possible moment after the shock of the shell explosion. The incipient functional symptoms from which he is suffering make him

fear, vaguely or definitely, that he has sustained some organic injury of the nervous system. This fear encourages the further development of such symptoms. It and its effects can be brought to an end by the reassuring remarks of the neurologist, after he has completed his examination. But those remarks must be repeated and forced upon the patient's notice. Especially is it the note of certainty in the doctor's voice which carries conviction. By one means or another the patient must be completely convinced of the truth of the doctor's explanation of his symptoms, and of the promise that they will quickly disappear. This conviction must pass beyond the stage of mere intellectual awareness and acceptance, and acquire the dynamism of strong emotion. Enthusiastic expectation of a rapid recovery is another essential condition of success, just as it was an earlier apprehension which was responsible for the development of the symptoms.

This is more than mere suggestion and counter-suggestion. The mechanical processes of auto- and hetero-suggestion do certainly come into play in the *fixation* of the symptoms and in their later development and multiplication. But the *origin* of the symptoms (tremors, difficulties of speech and locomotion, profuse sweating, headaches, diminution or loss of various forms of sensation, etc.) is to be found in the intense emotion of fear caused by the shell explosion, of which they are the objective physical manifestations. In like manner, although counter-suggestion plays its part in the cure of these functional symptoms, the factors which are of very much greater efficacy and importance in bringing about a *permanent* cure are: (1) persuasion, whereby the patient is rationally con-

vinced of the true nature of his symptoms; and (2) the sthenic emotions of confidence, conviction and expectation, which have a unifying effect upon the mind, and counteract the disintegrating effect of mechanical suggestion.

It will thus be seen that I adhere to Déjerine's theory of the pathogeny of the psycho-neuroses in preference to that of Babinski. As regards the "period of meditation" which often elapses between the occurrence of the emotional shock and the onset of the earliest symptoms, I would also follow Déjerine in holding that it is a period of subconscious emotional development. Babinski and his followers believe that it is a period during which auto- and hetero-suggestion co-operate to bring about the ultimate outbreak of the symptoms. The original shock, no doubt, produces some weakening of mental synthesis, although outwardly the patient does not appear greatly disturbed. The appropriate emotional reaction, with its innervations and external manifestations, develops gradually during the following few hours or days, as the patient's intellectual awareness of the accident arouses by association earlier emotional memories. The symptoms that eventually arise are such emotional manifestations in a state of relative dissociation and permanence. As Déjerine says:—

Everything that an emotion may create in an accidental and transient way hysteria may accomplish in a lasting way.¹

I have several examples of this delayed onset of symptoms in the case of hysterical mutism and hysterical hemiplegia which I analyse and describe in the next chapter. But I have obtained the

¹ *Psycho-neuroses and Psycho-therapy*, pp. 269, 270.

following unbiased introspective description from one of my officer patients who suffered from hysterical spasmodic contractions of the abdominal and leg muscles and profuse sweating and tachycardia, which came on some days after the time when he was exposed to heavy shelling. His account is as follows :—

My feelings during the shelling are hard to define, as I was too fully occupied to allow for much thought on the subject. Owing to the small area to which we were confined, there was no opportunity of being able to give vent to the pent-up feelings that were in me, and in consequence my nerves were strung up to such a pitch that I felt that something in me would snap. Every shell fired seemed to be nearer the mark than the last, and the ground all around was covered with shell holes. The general feeling was that "the next one" would land right in the post. Part of the trench had already been blown in. The back blast from each explosion flattened us up against the wall of the trench.

The days following I was always thinking of this episode, and at nights I could never sleep, but would just doze and then wake up with a start, with my heart palpitating furiously and with great difficulty in breathing. I would also find myself in a profuse cold sweat, especially of the scalp, forehead and hands. Then my legs began to be affected and would shake as though I had the ague. This would come on in the day at times, but invariably happened at night when I was lying down. About ten days later I was troubled with my stomach [he means abdomen]; at night something—I suppose my nerves—started pulling me up forward as I lay down and my body shook all over. This would happen every two or three minutes. This action affected my back, and I had a belt of pain around me. During this time I was always troubled with my heart, and I found it hard to lie down at all. The cold sweats also continued.

Emotional Origin of the Symptoms.—This description, written by an officer unversed in psychology and quite ignorant of the question at issue, is in

favour of the emotional origin of the symptoms, although, of course, factors of suggestion are not entirely absent. The emotion of fear in this patient during civil life always produced cold sweats, palpitations, and tremors of the limbs—just as in the case of a patient subsequently suffering from functional paraplegia it used to “take him in the legs” and he would feel weak at the knees. The period of incubation in some cases seems to correspond to the time during which the patient is struggling, with a certain degree of success, to repress the painful emotional memories and to remain “captain of his soul.” The final outbreak of the symptoms represents the partial failure of this effort of repression, or rather is a condition of the success of the *psychological* repression. The symptoms are “conversion” symptoms, in Freud’s sense of the term—i.e. they represent painful emotion converted into physical innervations.

With a certain class of patients, a more detailed form of mental analysis is necessary. In these cases the nervous breakdown is partly due to earlier mental worry, and the “active service” element is simply the last straw. The patient’s mind is a battlefield of conflicting emotional tendencies, many of which he himself fails to recognize. By long talks with him, following up thread after thread in the association of his ideas, one can recall repressed memories of earlier epochs in his life, showing him the true emotional significance of them and their connexion with his present disability. In this way the patient learns to understand himself, and therefore I would call the method “*autognosis*.” Self-knowledge brings with it self-control in the psychic domain. An analysis of the patient’s dreams is

often of the greatest help in this method. Indeed, the dreams of some of these patients are so terrifying that they *have* to be dealt with, and the quickest way to exorcise them is to analyse them—i.e. to trace the different parts of the dream back to their source in the patient's earlier life (by the method of "free" association), and so to discover the underlying unconscious dream-thoughts which have been enjoying a disguised or distorted fulfilment in the dream itself.

Treatment.—I now come to a therapeutic method which I have found to be specially valuable in dealing with *early* cases of shell shock exhibiting pronounced symptoms of functional nervous disorder, such as functional mutism, deafness, paralysis, tremulousness, etc., accompanied by more or less extensive amnesia. It is a form of hypnosis, but free from the defects attaching to the ordinary use of that method. To explain by an example:—

Here is a patient who was blown up and buried by a shell explosion two days ago and lost consciousness. On regaining consciousness some hours later he found that he was quite dumb, and also had lost all recollection of the shell explosion and of the events immediately following thereon. In other words, he is functionally mute and has retrograde amnesia. His memory for other recent experiences is also vague, but he is in full command of gesture-language, and can write down on paper all that he wishes to say.

I interview him alone in my office and tell him in a tone of conviction that I shall restore his speech to him within a few minutes if he will do exactly what I say. I then tell him to lie down on a couch,

close his eyes and think of sleep. I urge him *to give himself up to sleep*, to let sleep come to him, as it assuredly will. I tell him that he is getting drowsy, his limbs are getting heavy with sleep, all his muscles are relaxed, he is breathing more and more slowly, more and more deeply. Above all, that his eyelids are getting heavy, as heavy as lead, that he feels disinclined to open them, that he cannot open them however hard he tries. At this stage, which generally supervenes within two or three minutes, he really cannot open his eyes. This is a stage of very light hypnosis quite sufficient for my purpose.

I now tell him that the moment I put my hand upon his forehead he will seem to be back again in the trenches, in the firing line, in the fighting, as the case may be, and will live again through the experiences that he had when the shock occurred. This I say in a tone of absolute conviction, as if there is not the slightest shadow of possibility of my words not coming true. I then place my hand on his forehead. He immediately begins to twist and turn on the couch and shouts out in a terror-stricken voice. He talks as he talked at the time when the shock occurred to him. He really does live again through the experiences of that awful time. Sometimes he speaks as if in dialogue, punctuated with intervals of silence corresponding to the remarks of his interlocutor, like a person speaking at the telephone. At other times he indulges in imprecations and soliloquy. In some cases he is able to reply to my questions and give an account of his experiences. In others he cannot do so, but continues to writhe and talk as if he were still in the throes of the actual experience.

In every case he speaks and acts as if he were again under the influence of the terrifying emotion. It is as if this emotion had been originally repressed, and the power of speech with it, and is now being worked off and worked out.

Abreaction. — This process of “working off” repressed emotion is what Breuer and Freud call “abreaction.” In my view it is the most helpful therapeutic process in dealing with the majority of war psycho-neuroses. The original shock caused a *dissociation* of consciousness, i.e. an apparent suppression of a certain series of memories, and of a certain motor function (speech). Now, without accepting Freud’s sexual theory of the origin of the psycho-neuroses, for which I have never been able to find any convincing evidence (i.e. as a universal pathogenic factor), I *do* accept his theory of the cause of mental dissociation, viz. that it is the result of mental conflict and involves repression of emotional states. The repression of any emotion at its inception involves the danger of dissociation, the ideas accompanying the emotion being then more ready to split off from the rest of the mind and pursue a subconscious life of their own.

In most cases of nervous shock caused by shell explosion a state of intense fear is aroused in the patient’s mind, which, from its very magnitude, produces loss of self-control and apparent loss of consciousness. There is no real loss of consciousness, but the attempted repression and control of the fearful emotion at its inception brings about a splitting of the mind, which appears later as an amnesia of greater or less extent, often involving other losses of function also, such as dumbness,

deafness, tremulousness, or paralysis. The fact that under light hypnosis, and with the appropriate suggestions, these memories return, together with the lost voice, hearing, etc., is evidence that they were not abolished at the time, but were simply split off from the main personality. It is also evidence that the shock worked mentally rather than by its accompanying *physical* concussion (which is often absent).

In my method, then, the patient goes through his original terrifying experiences again, his memories recurring with hallucinatory vividness. It is this which brings about the return of his powers of speech, and not direct suggestion, as in the ordinary method of hypnosis.

My second modification of the ordinary method is in my manner of awakening the patient. Remembering that his disability is due to a form of dissociation, and that in some cases hypnotism accentuates this dissociation, I always suggest at the end of the hypnotic sleep that he will remember clearly all that has happened to him in this sleep. More than this, I wake him very gradually, talking to him all the time and getting him to answer, passing backwards and forwards from the events of his sleep to the events in the ward, the personalities of the sister, orderly, doctor and patients—i.e. all the time re-associating or re-synthetizing the train of his memories and interests.

By the process of *abreaction* I remove the underlying cause of the patient's original dissociation, and in attacking this cause I cannot be accused of merely treating symptoms.

I agree entirely with Pierre Janet that only hysterical patients can be hypnotized—in fact that,

as Charcot said many years ago, "hypnosis is an artificial hysteria." It follows from this that as the patient improves under treatment he should become less and less hypnotizable. That is the case with my form of the method. Hypnotism has been brought into disrepute by those seekers after the marvellous who have intentionally split up the personality of their subjects more and more in order to get ever more wonderful and abnormal manifestations from them.

Using this modified form of the hypnotic method, one can abolish that tendency towards "*equivalents*" which Janet mentions as one of the three stigmata of hysteria (the other two being *suggestivity* and *distractivity*). By this is meant the tendency which the patient shows to suffer from another functional symptom as soon as his original symptom is removed by suggestion under hypnosis. For example, a mute may develop headaches or gastric symptoms as soon as he has been made to speak by suggestion under hypnosis. By using "abreaction" this tendency is completely eliminated. The use of suggestion *without* hypnosis quite fails to remove this tendency to develop equivalent symptoms. The equivalent symptoms are often so vague that they are not noticed at the time, although they are none the less disabling.

Results of Treatment.—The hypnotic method is needed only for the very small minority of cases that arrive at an advanced neurological centre—only for those showing so-called major hysterical symptoms. In two series of 1,000 cases each I treated 173, or 17·3 per cent., in the first, and 132, or 13·2 per cent., in the second by means of hypnosis.

In these two series there were altogether 121 cases of loss of speech, or hysterical mutism. I succeeded in curing *every single one of these cases*. Many of them were deaf as well as dumb. These were given a paper of instructions to read, in which they were told to lie down, close their eyes, and give themselves up to sleep. When such a patient showed by the calm look on his face that he had reached a quiet frame of mind, I would suddenly and unexpectedly bang two books together near him, and have the pleasure of seeing his eyes flicker, and then find that he could hear. I could then continue the treatment by word of mouth in the ordinary way. Curiously enough, these deaf-mutes were the easiest of all my cases to treat.

Of course, there are some patients who are ready to malingering with major hysterical symptoms. I caught out twenty-eight such patients in my first series of 1,000 cases, and induced them to confess. But this is, happily, a very small proportion—less than 3 per cent.

If, finally, the modified hypnotic method is limited in application, wherever possible, to *one* treatment only, all the drawbacks with which the ordinary hypnotic method is beset are evaded. I only applied the method to the more severe cases, those that had later to be evacuated to the base.

Nevertheless, in such apparently severe cases as those of functional paraplegia this method was not found to be necessary. Vigorous persuasiveness was sufficient to produce a cure. In some of the lighter cases of mutism also this was found sufficient.

Stammering is much more difficult to cure than mutism. The patient can more easily cling to the first symptom than to the second, and every

hysteric clings to his symptoms. But in several cases I have produced a complete cure, and a decided improvement in others. In several cases where the patient had stammered in civil life I was able to trace the stammer back to a shock in early life, in the first few years of childhood, and under hypnosis I was able to call up the experiences with hallucinatory vividness before the patient's mind. The stammering was not completely cured thereby, because it had become the habit of a lifetime, but this recall of the shock was the first necessary step towards a cure.

As a further illustration of my method I will describe the case of an officer, aged twenty-five years, whom I treated in France in December, 1916, and whom I happened to have again under my care at Craiglockhart in May, 1918.

He had been sent into my neurological wards on account of his complete inability to stand shell fire, having the irresistible impulse to rush to his dug-out and crouch down there the moment shells began to fall in his neighbourhood. Earlier in the year (1916) he had been wounded during an advance and had been left out in No Man's Land under continuous shell fire for several hours. He gave a history of great timorousness and extreme weakness of memory during his youth. I learnt from him that he had been nearly drowned at the age of three years, according to what his mother had told him. He himself, of course, could remember nothing of the incident. I should also add that he exhibited many psychasthenic symptoms, e.g. he would begin to count the squares round the top of the stove in his ward, and find that he could not stop counting them. He would be impelled to count them hundreds of times.

I hypnotized this officer and then directed his attention back to the drowning incident at the age of three years. He at once began to live again through this incident, gasping with terror as he again, in memory, fell into the water. He described the whole event with such a wealth of detail that it was difficult not to believe that he had been taken straight back to this early period in his life and was living again through the terrifying experience. Later on he re-experienced with hallucinatory vividness the incident of his baby brother's funeral, seeing again the coffin being lowered into the grave and feeling the desperation of grief *as a present emotion*. He was eighteen years old when this funeral took place.

I concluded from these and other results of the hypnosis that the patient's memory was intact, but that certain factors were interfering with the power of recall, viz. the very strong emotional tone of many of these memories, combined with repression of them following upon mental conflict. The "abreaction" of these painful memories in the hypnotic state—i.e. the working off of their emotional accompaniments—should therefore prove beneficial to the patient's powers of memory and to his general mental condition. This was found to be the case, and the patient appeared quite a different, and certainly a much more normal, person after the treatment.

In May, 1918, I learnt from this patient that his mother vouched for the accuracy of his revived memories of the drowning incident in every particular. He was again in hospital suffering from certain neurasthenic symptoms, but he had completely recovered from his previous hysteria. He had

done a year's duty since he was with me in France.

Other Treatment.—General hygienic measures are, of course, necessary in the after-care of severe cases, and suffice for the entire treatment of the largely preponderating light cases. Regularity is insisted upon in all habits—alimentation, excretion, sleep, exercise. The patients are put on physical drill and sent for short route marches. Many do light duty in the wards or in the grounds of the hospital. But to the “gospel of work” is added the gospel of cheerfulness and hope.

For insomnia suggestion treatment at night is often very efficacious. The patient can often be soothed to sleep and incidentally taught how to employ auto-suggestion in this case.

Only very rarely have I found it needful to *isolate* patients. But this device succeeded in the case of three patients showing persistent tremors of the head, where every other method had failed.

Summary.—The most useful therapeutic agent in the case of *hysteria* caused by shell shock is “abreaction,” or the working off of the repressed emotion caused by the shock. Mental analysis is a means to this end, and light hypnosis, applied under proper safeguards, is the quickest and most effective method of effecting this analysis, where amnesia is present and the case is seen early.

For cases of *neurasthenia*, which are the more numerous and involve emotional preoccupation often dating back many years, mental analysis and re-education, without hypnosis in any form, are the needful agents, although the abreaction of the original

emotional disturbance or disturbances is again essential.

In both classes of cases the arousing of *sthenic emotion* in the patient's mind is an important adjunct in the cure, both in the form of enthusiastic confidence in his doctor and expectation of a complete recovery, and also in the form of vivid interest in some form of occupation in the stage of convalescence, during which the mind becomes more unified and consolidated.

I have hitherto not mentioned *rest*, which is, of course, also fundamental. But no complete rest is possible while the mind is obsessed with bottled-up emotion. This emotion must be completely worked off, and then true rest will come. The preoccupations of the neurasthenic also must first be dealt with if any form of rest-cure is to produce good results.

CHAPTER IX

THE PSYCHO-NEUROSES OF WAR (II)

IN the previous chapter I have indicated the principal methods of treatment which I found useful in dealing with early cases of war neurosis while acting as neurological specialist to the Army of the Somme front. In the great majority of these acute cases the method of *rational persuasion* sufficed to produce a cure if preceded by a thorough physical examination and supported by the arousal of feelings of confidence and enthusiastic expectation of a favourable result. Where earlier emotional shocks and mental conflicts had already weakened the patient's powers of resistance to the stress and strain of war the method of *mental analysis* was found helpful. Finally, in cases showing extensive amnesia, involving dissociation of intensely emotional psychic states, the method of *light hypnosis, under adequate safeguards*, was invariably successful in restoring the lost memories and freeing the patient from subconscious emotional obsession.

My experience with more chronic cases in neurological hospitals in Great Britain impressed me with the great difference produced by lapse of time in these functional nervous disorders and in their reaction to different forms of treatment. Several of my officer patients in France were again my

patients at Craiglockhart, and notes on the further history of many other of my patients of the Somme have come into my hands. It seems, therefore, worth while to attempt a comparison of these earlier and later cases. Their differences help somewhat to explain the differences of opinion held by equally competent observers on diagnosis and treatment.

As regards the cases seen in the field the percentage of returns to duty varied, as might naturally be expected, according to the nature of the fighting. It was at the time of a push that this percentage became highest. Thus, whereas my average percentage returns over a period of sixteen months was seventy, at the time of the Cambrai push in November and December, 1917, I was able to return 91 per cent. to duty. This was due to the number of exceptionally light cases that are sent down at the time of a push, to be out of the way. Neurologists in other armies have no doubt obtained equally high percentages.

But these percentage returns to duty are of no help in deciding the relative merits of different methods of treatment, for the simple reason that the *same* method, apparently, was used by all of us with these lighter cases, viz. the method of persuasion. For my own part, at any rate, I reserved the other therapeutic methods mentioned above, almost without exception, for cases whom I intended to send down the line. It is a study of these cases which is the more helpful in contributing to a scientific knowledge of our subject. But first let us consider the various types of psycho-neurosis as they arrive in an advanced neurological centre at the time of a push.

Neurological Cases during a Push.—The majority of the nerve cases that came down during the first forty-eight hours after our tanks and infantry went over at Cambrai in November, 1917, were very light. They were either old cases of "shell shock" who had lost their nerve again at the prospect of being heavily shelled, or else men constitutionally weak of nerve and lacking the power to pull themselves together in the face of an emergency. They came down in lorries as walking cases, and made a sorry show in the reception-room, with their hanging heads and furtive looks. They gave the impression of men who had, at least temporarily, lost their self-respect. Many of them were keeping up, with obvious effort, rhythmical tremors which had no doubt been involuntary and irrepressible some hours before, but were now within the field of voluntary control. By distracting these cases with a rapid sequence of questions as to the origin of their disability, I was able to bring the tremors to an end, and by treatment during the next few days made the cure a permanent one. These men returned to the line within a week. Others suffered also from tachycardia and genuine headache and vertigo, and needed a more prolonged rest in hospital.

On the following days more serious cases began to arrive, many of them stretcher cases. These had been concussed or buried by the explosion of shells quite close to them, and some of them had been rendered unconscious for a longer or shorter period of time. A few were still apparently unconscious of their surroundings, although their minds were probably in a dream state rather than an absolute blank. The following are brief descriptions of a few typical cases :—

CASE A—*Trance-like State.*—This patient is brought in lying on a stretcher, motionless except for a slow rhythmical rolling of the head from side to side. His eyes are wide open, gazing fixedly in front of him, and following the movements of his head. He makes no response to questions addressed to him, nor do his eyes show any recognition of what is before them. He is apparently both deaf and dumb, but a vibrating tuning-fork held with its base on the mastoid process or on the vertex of his skull arouses slight facial movements signifying discomfort. There is exaggeration of all the tendon reflexes, without ankle clonus, extensor plantar response, or other signs of any organic nervous lesion. This is combined with muscular hypertonus and a tendency to spasticity of all the limb-joints.

Within two days this patient awoke from his trance-like state, with his hearing completely restored, but speaking with a pronounced stammer. He was also able to walk, although rather weak at the knees. After six days' treatment the only symptoms which he continued to display were slight tremulousness, stammering speech, emotional instability, and amnesia for the events of the first few days of his illness. Independent inquiry showed that this case was one of shell concussion with burial.

CASE B—*Petrification of Terror.*—This patient also lies flat on his back oblivious to his surroundings. But unlike the previous case, his arms are completely flexed at the elbow and his hands clenched level with his shoulders. His whole body is in a state of continual tremor, most pronounced in his arms, and his face wears a fixed stare of horror, with starting eyes, dilated nostrils, the mouth slightly open and the corners drawn outwards.

This is the very petrification of fright, such as the Greeks knew and portrayed in the Gorgon myth. A night's sleep under the influence of morphia brings him relief from this mental and bodily obsession of terror, and his recovery thereafter is rapid. At the end of a week, under appropriate treatment, he is an apparently normal man again, sleeping well at night, although easily fatigued, but with no clear recollection of the circumstances of his illness.

Although exposed to heavy shell fire, this patient had not been blown up or buried by shell explosions (compare with Case A).

CASE C—*Deafness, Mutism, and Amnesia*.—A walking case this, but unable to speak or hear. He is somewhat lethargic, but on being given pencil and paper writes a description of the origin of his injury. He has complete amnesia for events immediately following upon the shell explosion up to the time when he reached the advanced dressing-post. Slight tremulousness and occasional headaches complete the list of his symptoms.

I place him on a couch and show him written instructions to close his eyes and think of sleep. After an interval of about two minutes I make a sudden noise by banging two books together. His eyelids flicker, and I find that his power of hearing has returned to him. I then proceed to give him suggestions audibly, urging him to continue thinking of sleep, to give himself up to sleep, and saying that I am about to put my hand on his forehead, and that the moment I do so all the events of his accident, which he has forgotten, will return to his mind with hallucinatory vividness. The result is that the moment I touch his forehead he shouts out, using the same words that he did while under fire, and

giving evidence of the same emotion of fear that he must have experienced at that time. After he has worked off all this emotion I remind him of where he is (in hospital), who is speaking to him (myself), etc., and after giving the suggestion that he will continue to remember everything, I wake him up and find that his main neurotic symptoms—deafness, mutism, and amnesia—have disappeared. I send him back to the ward to have a good sleep. He makes an uninterrupted and complete recovery during the next few days.

CASE D—*Paraplegia*.—Suffers from paraplegia, and is convinced that he cannot stand or walk. He says that this came on gradually, after a dump, of which he had partial charge, was blown up by bombs from a German aeroplane. At the moment the bomb exploded he ran for his life, but after a few seconds he found that his knees were giving way under him and he fell. This was the beginning of his paralysis. I find complete loss of cutaneous sensibility over both lower limbs and over the lower part of the abdomen up to about the level of the umbilicus. The patient's cutaneous and tendon reflexes are normal. There is no sphincter trouble. Within two days this patient was walking quite normally after a few lessons from me, during which I dragged him up and down the ward and exhorted him in every way possible to make the requisite effort to walk, telling him with the utmost conviction that this should be possible through his own exertions.

CASE E—*Hallucinations*.—This is an officer of the R.A.M.C. whom I had met only a few weeks previously when he was in complete bodily and mental health. A shell falls in his ambulance, near enough to him to knock him off his feet by its con-

cussion, but without depriving him of consciousness. He becomes very tremulous and depressed, and unable to sleep. The following day he finds that he is suffering from combined hallucinations of *sight and touch*. For example, he finds a strange valise in his bedroom and even verifies its existence by going to it and touching it, and yet he learns from an independent source that *there was no valise there at all*. At the time of his entering my ward, a day or two later, he is suffering from acute headaches, and profound depression and anxiety, with no physical signs of nervous injury. This patient was an asylum medical officer in pre-war days—a fact which perhaps explains the form which his nervous symptoms took.

Causation : Dissociation of Psycho-physical Functions.—Treatment, in the form of vigorous counter-suggestion and rational persuasion, was given to all those patients immediately upon their arrival in hospital, and was continued unceasingly during their stay, with the aid of the sister-in-charge. Consequently, in the majority of cases the functional symptoms disappeared or became gradually of less severity right from the beginning. But in a few of the more resistant cases I was able to observe the tendency for more severe symptoms to make their appearance after a “period of meditation,” as Charcot called it, and many of the other cases seem to have shown the same “incubation process” during their passage from the line to the neurological centre. It is particularly noticeable in the case of motor symptoms, such as paraplegia, hemiplegia, and loss of speech, and these are just the symptoms whose onset seems, at least on a superficial view,

to be completely explicable in terms of Babinski's¹ theory of suggestion. The idea of loss of power has been implanted in the patient's mind at the moment of mental confusion and loss of emotional control produced by the shock of the shell explosion, and gradually realizes itself during the following few hours or days.

But, as Myers² has pointed out, this theory cannot explain the loss of memory which is so frequent a symptom in the war neuroses. Nor does it explain the sudden or gradual onset of vasomotor and secretory symptoms which, unless treated, and too often in spite of treatment, persist for long periods, although there is often no wound present to give one the excuse of classifying them under the heading "reflex nervous disorder." And there is now a large and growing body of scientific opinion which regards these "reflex nervous disorders" as entirely functional in nature and curable by psychotherapy.

As regards loss of memory, it is a remarkable fact that Babinski does not once mention this symptom in his recent book on hysteria. Had he devoted more attention to it and to other outstanding *psychological* characteristics of functional nervous disorders, his final theory might possibly have been less clear-cut, but surely more intellectually satisfying.

Viewed from the psychological point of view, hysterical disorders all fall under one heading, as examples of *dissociation* of psycho-physical functions (walking, speaking, hearing, remembering certain experiences, etc.) following upon a diminution

¹ Babinski and Froment, *Hysteria or Pithiatism* (English translation), p. 41.

² C. S. Myers, *The Lancet*, January 11, 1919.

or loss of higher mental control. One school of thought would explain this dissociation as the result of conflict between opposing and incompatible emotional tendencies and as characterized by repression of one of these tendencies. Others consider that a strong emotional shock is capable of bringing it about in those who are hereditarily predisposed, and may even produce it in a normal individual, if sufficiently intense. On the other hand, Babinski holds that "hysterical symptoms and violent emotions are incompatible."¹ It is perfectly true that an intense emotion, such as anger, may overcome a functional dissociation. I have made a functional paraplegic walk by the simple expedient of inducing him to lose his temper with me. But this fact is in no real contradiction with the theory of the emotional origin of the disease, especially if the originating emotion was of such intensity as to produce a state of stupor—a result often observed in the war.

Cases of Delayed Onset of Symptoms.—In the previous chapter I have described one case illustrating the delayed onset of symptoms, where preventive psycho-therapeutic measures were not forthcoming. The following two cases illustrate the same phenomenon. The first description is in the patient's own words, given to me at Craiglockhart after he had recovered from his symptoms.

CASE F—Capt. X, Regular Army, aged twenty-five, suffering from left-sided hemiplegia, including loss of vision in the left eye, writes: "On August 23, 1914, we came into action, and on the following day, whilst in a farmhouse, we were heavily shelled, the house

¹ Babinski and Froment, *ibid.*, p 43.

being practically knocked to pieces. My recollection of this incident is fairly clear, and at the time I noticed that every shell that burst seemed to concuss me at the back of my head near the neck. However, when I got out of this place I noticed nothing further for about *two days*, during which time we had had practically nothing to eat. Then I noticed that a mist was gathering in front of my *left eye*, accompanied by a violent headache. The colour of the mist was continually changing, and eventually, after a lapse of *six or seven days*, almost complete blindness set in. Coincident with these headaches and lack of vision a numbness began to settle gradually in my *left side*, a numbness similar to that when one's fingers became bloodless on a very cold day. It occurred first of all in the upper portion of my leg and gradually extended upwards till my left arm was affected, and the lower left side of my face became slightly puffed and sore. Almost immediately after this stage had begun to develop my left side felt as if it were paralyzed, locomotion being difficult and painful, and headaches becoming worse and more frequent."

After five months in hospital the anæsthesia and paralysis cleared up, but the headaches continued. The patient went on light duty, but his headaches got worse, and he suffered from a complete loss of interest in anything he was doing. In May, 1917, he went to France again, and on November 30th was hit in the finger. This slight wound brought back all his old symptoms, from which he again recovered at Craiglockhart.

CASE G—Lieutenant Y, Regular Army, aged twenty-three, suffering from right-sided hemiplegia, including the right eye. History of two motor-cycle

accidents and one riding accident, prior to service in France, on each occasion patient lost consciousness, in the last accident being kicked on the right side of the head. Eighteen months later he was in the front line in France one morning when he heard the Boche let off a 200 lb. mortar. He saw the thing and was waiting for it to turn to come down before deciding which way to go, when the sun came out from behind a cloud and he lost sight of the bomb. The last thing he remembered was the feeling of having his ribs crushed, a burning light in his eyes, and a crack on the head. He was "laid out" for about five hours, and then got up alone and said nothing about it, because he had no runner with him at the time, and this was against orders. He felt very shaky and had an awful headache, but he stayed in and out of the line for the next ten days, after which he was admitted to hospital. Not until then did the loss of sight and paralysis down the right side occur. It came on quite gradually, together with incessant noises in the head, and pain round the right side of the head. Complete impotence also set in.

This patient came under my care at Craiglockhart two years later, after long leave at home. He enjoyed good health, except that every seven to ten days he had a bad attack of tinnitus, headache, and pain round the right eye. His right leg would feel "numb and heavy" on these occasions or when he became very tired. He continued impotent. Later on improvement occurred in the form of a lengthening of the interval between his attacks of headache and a gradual disappearance of his impotence.

In both of these cases commotion rather than emotion seems to have originated the symptoms.

although when they were seen by me months later they showed no signs of organic paralysis. In the second case the kick on the right side of the head eighteen months before probably determined the side of the hemiplegia ; in the first case the weaker half of the body suffered. I could obtain no evidence from these officers of conscious emotion during the "period of incubation."

In cases which I have seen in the field, however, where the patients were just on the point of becoming completely mute or paraplegic and were rescued by psychotherapy, there was unmistakable evidence of subconscious obsession by the emotion of fright, shown by their dreams at night and their physical symptoms during the day. Another mute patient had been struggling for several days to keep his voice, but eventually lost it. During this time he was feeling more and more the full psycho-physical effects of his original emotional shock. I would therefore suggest that in the cases of the two hemiplegic officers the symptoms corresponded to the subconscious development of the emotion of fear which had been denied full outward expression and had been repressed from clear consciousness by the *morale* of the regular soldier. This is not proof, I admit, and I merely put it forward as a possible explanation.

It was difficult to obtain conclusive evidence in the field on the nature of the "period of incubation," because one's first duty was to cut it short and to reverse or neutralize the mental processes going on. But my general impression was in favour of Déjerine's view that the interval corresponds to a period of subconscious emotional development, and not to the working merely of suggestion.

Amnesia.—In 15 per cent. of all the cases seen by me in the field there was pronounced loss of memory, combined with the different varieties of physical functional symptoms (paralysis, mutism, deafness, contracture, etc.). My method of dealing with these cases was to restore the memory in a state of light hypnosis, taking care to encourage the revival of the emotional elements of the forgotten experience in all their original intensity. The result was that the accompanying physical symptoms disappeared of themselves, with more or less completeness according as the emotional accompaniments of the recalled memories were more or less vividly re-experienced *as a present hallucinatory experience*, without the need of making specific suggestions that they should disappear.

In the previous chapter I have explained this on the theory that the emotional memories were *repressed* memories, and that the physical symptoms were their physical equivalents, the repressed emotion having been "converted" into physical inner-vations in accordance with Freud's theory of "conversion hysteria." On again reading through all my notes of these cases I feel inclined to suggest another hypothesis for many of the cases, viz. that the reinstatement of intense emotion acted physically in overcoming synaptic resistances in specific parts of the nervous system, and so put the nervous system into normal working order again. The effect is more efficient than that of, e.g. an electric current would be, since it is selective and occurs only in just those parts of the system concerned with the production of the symptoms. (Cf. the McDougall theory of the physiological factors of dissociation and hypnosis.) The theory of abreaction

would still apply to the cases where mental conflict and repression of emotional tendencies had taken place at the time of the shock or injury. But in many cases the conditions of the injury appear to have excluded this mechanism.

This modification is one of theory only. In practice I still regard the recall of lost emotional memories with hallucinatory vividness as a most beneficial form of treatment for patients seen shortly after the origination of their symptoms. It reintegrates the mind,¹ and by again linking up the physical manifestations of emotion with their physical counterpart enables the former to come to a natural end when the emotion has been worked off, instead of persisting as the relatively permanent physical manifestations of the neurosis.

In France I succeeded in clearing up every case of amnesia by means of light hypnosis. Even cases of obviously physical concussion with retrograde amnesia responded to this form of treatment. Thus, an Australian soldier was brought into my ward with complete loss of memory, his field medical card being marked "Identity unknown." By hypnosis I discovered that he had been pushed out of a motor lorry by his irresponsible companions and rendered unconscious. He was taken to Amiens, where he seemed to recover. Later on he was found wandering and completely unable to give any account of himself. He had previously been exposed to very heavy shelling and was of a typically hysterical mentality.

In England the results were very different. In only a small proportion of cases could I recover lost memories by *mild* hypnotic means. Like the

¹ Cf. Myers, *op. cit.*

other neurotic symptoms, the amnesia appeared to have become more fixed and intractable. In the cases where the hypnotic state was induced and lost memories were recalled, it was extremely rare to find the other neurotic symptoms greatly affected thereby. Thus I hypnotized a deaf-mute suffering from extensive amnesia, and eventually recovered all his lost memories, but he remained deaf and dumb throughout this time, and eventually recovered speech and hearing in a dream at night! In acute cases near the line such failure never occurred.

What was lacking in my experiences in England was the emotional abreaction, or the recall, with hallucinatory vividness, of the emotional tone of the lost memories. At Craiglockhart I used a modified form of the method with three of the officer patients and succeeded in producing the abreaction. In each of these three cases I had the satisfaction of seeing the physical symptoms—paraplegia of old standing, with headache, painful contracture of right arm, and very bad stammer, respectively—alter, increase, and then disappear. These three officers all suffered from intractable insomnia. I therefore sent them to sleep at night by means of light hypnosis—twice only—and treated them by means of mental analysis during the day. In two out of the three cases the “emotional upheaval” took place at night, the patients re-experiencing their original shock in all its vividness and the physical symptoms then disappearing. In the third case the abreaction occurred during the day. They all made good recoveries, although they were chronic cases of many months’ standing, and every other conceivable method had been used with them in vain.

Blood Pressure : Disturbances of Endocrine Glands.

—I made measurements of blood pressure in a series of forty-two consecutive cases of severe neurosis in the field, using the auscultatory method with a Tycos sphygmomanometer. The frequency distribution of the systolic pressures was as follows :—

Under 110 mm.	110-120	120-130	130-140	140-150	Above 150.	Total.
1	4	9	13	9	6	42

It will be seen that more than one-third of the cases had a blood pressure > 140 mm., and much more than one-half had a blood pressure > 130 mm. The normal blood pressure of a healthy man of about thirty years of age is generally given as 120 mm., 130 mm. I correlated these blood pressures with the corresponding pulse-rates and obtained a zero correlation co-efficient. These results may possibly indicate a preliminary increase of adrenalin output in some of the severer cases of war neurosis.

In like manner one might infer from the combination of tachycardia with fine tremors of the outstretched hands found in so many cases a disturbance of thyroid secretion. In two or three cases I also noticed a tendency to exophthalmos and thyroid enlargement, but I was surprised at its rarity, in view of the emotional ætiology assigned to it in the text-books.

The importance which Sir Frederick Mott has attributed to disturbances of the endocrine glands in the symptomatology of the war neuroses is likely to be more and more emphatically justified as the

results of observations made by different observers in this field of research are accumulated and compared. The same holds good of Mott's views with regard to the rôle played by the physical manifestations of the emotions in determining the form which the war neuroses take. The far-reaching extent of the bodily changes, involving cardio-vascular and glandular activity in addition to that of the voluntary and involuntary musculature, explains the intractableness of so many of these cases, to which the diagnosis of hysteria in its ordinary sense would hardly apply. Nevertheless, if the originating cause was a mental disturbance, we may theoretically expect that psycho-therapy may help to readjust the balance once more even in such widespread physiological disturbances, and practical success, although slow and partial in many cases, seems to justify this expectation.

After-histories of Patients Treated in the Field.—

I have a series of twenty-two completed after-histories of patients treated by me in France. I had used light hypnosis with all these cases, which were severe, and cleared up their amnesias and other pronounced hysterical symptoms (mutism, paralysis, spasmodic contractures, etc.) by this means. In only one of these cases did relapse or the appearance of other hysterical symptoms occur later on. This case suffered from deaf-mutism, with extensive amnesia following upon exposure to the explosion of a shell, all of which symptoms cleared up completely. He eventually reached a neurological hospital in the north of England suffering from weakness of the lower limbs. Mental analysis brought to light earlier pre-war mental shocks, and when these had

been talked out all functional symptoms completely disappeared.

It was gratifying to find that fifteen of these cases (66 per cent.) eventually returned to duty.

One of them had been buried in a dug-out and suffered from amnesia for the events of the accident, hyperæsthesia of the right side of the neck corresponding to the second and third cervical areas, and fixation of the head owing to tonic contraction of the neck muscles.

Another had fallen into a shell hole full of mud, and had been dragged out by traction on the left arm. Immediately thereafter his left arm became completely paralyzed, with anæsthesia, vasomotor disturbances, and exaggerated tendon reflexes. There was evidently organic trouble, due to traction on the brachial plexus, but this was overlaid by a considerable degree of "functional" disturbance. The patient was very easily hypnotized, and then lived through his painful experiences once more, showing some movement of the arm while doing so. This treatment, helped out by physical methods, produced a great improvement in his powers of movement and sensation during the following few days. Like the preceding case, this patient made a complete recovery in England and returned to duty.

While working in a London hospital I saw a similar case of monoplegia which had not been treated before reaching England. The paralysis was still complete, and improvement under treatment took place much more slowly, although the final result was satisfactory.

The general conclusion which I would draw from these cases, and from a few others whom I have myself treated at Craiglockhart after having previously

had them as my patients in France, is that the early recall of submerged emotional memories by my method of modified light hypnosis not only removes the accompanying functional symptoms without danger of consequent relapse, but also greatly shortens the period of convalescence which these severe cases need before final discharge from hospital. If again subjected to great strain, no doubt these patients would succumb more quickly than they would have done had they not experienced their original shock. But this holds good of *all* methods. One does not need to work long in the field to discover this fact. Twenty-one per cent. of my Cambrai cases had been in neurological hospitals (not my own) before. It should not be brought forward as a criticism of any method where *severe* nervous disorders are concerned.

Mental Analysis: Autognosis.—Patients seen at a late stage of their illness show the well-known fixation of symptoms so conspicuous by its absence at the front. But more serious than the symptoms themselves is the patient's state of mind. A distorted view of his illness has developed and has become linked up by numerous bonds of association with earlier emotional incidents of his life equally misunderstood by him. We have here to deal with the preoccupations of the neurasthenic rather than with the crude dissociation, or, as it were, mental carelessness of the hysteric.

The method to be employed is that of long persuasive talks with the patient, such as Déjerine advocates, and Rows, Rivers, and others have adopted in England, in the course of which one enters into his past mental conflicts and worries, explains fully the

origin of his present symptoms, and helps him to see both the past and the present experiences in their right proportions. This analytic method aims at giving the patient a true insight into his mental condition, and I have therefore called it the method of *autognosis*. Hypnosis may often be used as a supplementary aid in the course of the analysis, bring up earlier emotional experiences with the requisite vividness.

Examples of the application of this method are only convincing if reported in full. I give full notes of two such cases in the following chapter. It is only needed for the more intractable chronic cases of war neurosis, when it may extend over months. In the majority of acute and subacute cases these prolonged analyses are certainly not necessary. Nevertheless it is the most complete of the purely psycho-therapeutic methods, and theoretically the other methods (exclusive of mere suggestion) might be regarded as abbreviations of it.

CHAPTER X

THE PSYCHO-NEUROSES OF WAR (III)

THE following are full notes on three of my war cases, the first having been seen by me in France in 1916, the second and third in England in 1915.

CASE I—Total Loss of Memory.—No. 2993. Private J. M——, 6th Brigade, Machine Gun Company, A.I.F. Aged 32. Single. Seven months exposed to shell fire. Previous occupation : surveyor.

This patient was admitted to No. 21 C.C.S. on the evening of December 5, 1916, with complete loss of memory. He was sent to me from a New Zealand Hospital with a card marked "Unidentified." He could speak, but was quite unable to give any account whatever of himself, and appeared to be in a dazed, almost stuporose, condition.

I hypnotized him immediately, and reached a deep stage within one minute. I then obtained the following account (abbreviated) from him:—"Was pushed out of a car by somebody who was drunk. Fell on the back of my head. Was stunned." Patient remembers being blown up by a shell. Came here in a car. Does not remember getting into the car, but remembers getting out here. Asked about his memories of earlier events, he says that,

when a boy, he lived in England and worked at lace-making. His address was: "King Street, Long Eaton, near Derby." He has three brothers and two sisters. He remembers his father, "Alf M——," who was an engine-driver. He now remembers that his own name is Jack M——. Remembers going into the line at Factory Trench, near Flers. Was near Bapaume afterwards. He was blown up by a shell just inside the trench on the left-hand side. Was blown up, but does not remember losing consciousness. He was a surveyor in Sydney, N.S.W., and went to New Guinea just before the war.

Patient was then brought out of the hypnotic sleep.

Physical Examination.—Plantar reflexes: flexor. K.J. + Arm reflexes, biceps and triceps, +. Spasticity of limbs, and slight tendency to katatonia. Hypertonicity of leg muscles. Eyes normal. Tongue clean and steady. Pulse 68. Heart normal. Abdominal reflexes normal. No ankle clonus.

Patient complains of acute pain at the back of the head. He was again hypnotized on the following day (December 6th) in the presence of Col. H. E. M. Douglas, V.C., R.A.M.C. I found that he was a very good hypnotic subject, and by appropriate suggestions I was able to produce rigidity and anæsthesia of the limbs, and visual hallucinations, e.g. of a bright red light, and of my photograph on a blank sheet of paper. I tested the latter hallucinations by showing him six blank cards, all apparently of identical size and appearance, except that one of them had two very faint and small crosses in pencil near opposite corners. I showed him these cards, and on showing the marked

card I suggested that it was a photograph of myself. He said that he could see it plainly, and that it was a good likeness. I then shuffled the cards together and asked him to pick out the photograph card, which he did immediately.

Putting a bottle in his left hand, I suggested that he was unable to drop it, however hard he tried. He made vigorous efforts to extend his fingers, but failed to relax his grip of the bottle, which was tightly clasped by the metacarpals and proximal phalanges. I then suggested that he was unable to get out of the chair, in spite of all his efforts. He made frantic efforts, strongly contracting the muscles which would have enabled him to get up, but at the same time contracting many of the opposing muscles equally vigorously, so that he merely writhed in the chair, without being able to get out of it.

Before waking him up, I gave him the post-hypnotic suggestions that his headache would completely disappear, that he would sleep soundly that night, and that at 3 p.m. that afternoon he would give the sister a cigarette for me. All these suggestions were carried out. At 3 p.m. the sister was not in the ward, so he gave the cigarette to the orderly to hand to me.

On December 11th I again hypnotized the patient, and tested his memory for events at different times of his life by suggesting that he would live again through the events of his birthday at the age of twelve years, six years, three years, two years, and also on the day when he was six months old. He gave vivid descriptions for all these dates, which I briefly summarize as follows :—

Twelve years old : Going to work at West End Mills,

His work is to strip mill of shuttles. Some one is throwing black lead about, and they are all laughing. It is now 8.30 a.m., and he is having bacon for breakfast, with Holbrooke's Sauce. He is now walking along with Jack Smith, who is thirteen years old. Now he is putting bobbins into the steam oven.

Six years old : " Am going down the canal side, dodging school. Have my boots and stockings off and am sitting with my feet in the water." It is his birthday, March 7th, and a fine warm day. He had a handkerchief for a present. In the evening his mother found out that he had been playing truant and " took the stick " to him. He begged his mother not to tell his father what he had been doing.

Three years old : " Am walking to school at Long Eaton. Started to go to school two days before. Got rock sweets for a birthday present." He sees other little boys sewing handkerchiefs. He has learnt the first three letters of the alphabet.

Two years old : " Mother is carrying me downstairs, and sits me in a chair." Has bread and bacon for breakfast, and falls asleep in the chair. On waking up, he sees his sister Annie (whom he calls " Ally "), who gives him sugar.

Six months old : " I am crying. Mother is carrying me down a street, and hands me to another woman, who carries me for a bit and then gives me back to my mother."

Ten years old : " I am in school, reading a Standard V book. The story I am reading is headed ' Robert in a Snow Storm.' " Patient says he can see the page, and on being urged to read it, he reads :—
 . " Robert was a brave man, he thought not of

himself. . . ." Patient then seemed to fall asleep (in hypnosis).

On December 13th I hypnotized M—— again, in the presence of Lieut.-Colonel C. S. Myers, R.A.M.C., F.R.S. I then suggested that he was *twelve years old* (forgetting that I had fixed upon this date, among others, for the previous tests).

Patient said: "I am getting up. . . . Cooking bacon on the gas stove in the kitchen. Am now eating bacon. All the others are in bed. Time, 6 a.m. Am now going to work at the West End Mills. The work is to strip cotton out of the shuttles. I am laughing, and some one is throwing black lead about." It was then suggested that patient is in the trenches, at the time of his nervous shock. He says: "Shell flash! Shell came on right side." He cannot at first remember his officer's name. Later on he says that it is Lieut. Lilley. "I am putting up my gun. A shell comes in on my right and kills one man and wounds four. I helped to pick them up. Another shell flash! Two men are killed, Crisp and Upton are wounded. . . . I am going into the dug-out to dismount the machine gun. Can smell gas. I go along the trench shouting Gas! I remember coming out of the trenches, but was queer and had pains in my head."

It was then suggested to the patient that he would see what happened to him after he left the trenches, and I thus got an incomplete account of his movements between then and the time of his admission to No. 21 C.C.S. The patient said: "I went on leave to Amiens the day after we came out of the trenches. . . . Had very little to drink in Amiens, only one or two beers. . . . About 7 p.m. tried to return to Melincourt by train, but found there were

no trains, so got into a motor lorry going to Albert." Picked up some jovial Australians on the way, one of whom pushed him out. He remembers falling on the right side of his head. His memories after this are confused, so, upon Colonel Myers's advice, I give him the post-hypnotic suggestion that he will remember everything that he has now recalled, when he wakes up. I then wake him up. The post-hypnotic suggestion proves to be successful, and the facial expression of the patient is noticed to be different, free from the bewildered look which he had previously had.

Prior to this moment, the patient had had a very vague idea of his own personality during the normal waking state.

On December 16th I again hypnotized him, and succeeded in filling up the gaps in his account of his accident. He was picked up from the road by a motor car and taken to Amiens, where he wandered about aimlessly, noticing that everybody in the street stared at him. He was eventually taken to the New Zealand Hospital, and then transferred to No. 21 C.C.S.

On December 19th I evacuated him to the base, with his memory fully restored.

I have tested in three other cases the greatly enhanced power of recall (so-called increase of memory) which is usually found in the hypnotized subject, and is illustrated by the above case, and have succeeded in reviving memories dating from the age of one month, six weeks, and two months respectively, as the earliest memories capable of recall. If one could obtain independent evidence of the objective validity of these memories, one might tentatively draw the conclusion from these cases

that the life of memory begins as early as the first month.

CASE II—Disordered Action of the Heart.—Lance-Corporal W——, 2nd Gordon Highlanders. Aged 31. Canadian. Weak heart—irregular. Excitable. Very tremulous on first admission (May, 1915). Was in the firing line in France during October, 1914. Out of eighteen men of a section he was the only survivor. A close friend of his was shot by his side—his head being blown clean off his body. He was under shell fire on October 23rd, and for hours after he could hear nothing else but the groans of wounded and dying men.

Psycho-analysis. July, 1915. Patient gives a history of many frights.

Aged 29: He was engineer on the Grand Trunk Railway. Through a fireman falling asleep and the pumps breaking down, water in the boilers got too low. The strain of getting the pumps working again, with imminent risk of the boilers bursting, told on his nerves.

Aged 27: He was working in M——'s Wood-working Factory, arranging for the cleaning of two boilers. He got into one at 12 p.m. after she had had 125 lb. of steam at 6 p.m. He was in from twelve till two cleaning it out. It was exceedingly hot.

Aged 11: His younger brother fell against a toy wheelbarrow and damaged the bridge of his nose. His younger sister put 2 lb. of steak on his face, and patient, not knowing of this, and coming into the room suddenly, on taking the bandage off got a serious fright, because he thought the steak

was really his brother's face, and that his brother was dead.

Aged 8: His father returned from a drinking bout late at night drunk, and lined up the four children (patient was the eldest) and threatened to cut their throats.

Aged 17: Spanner incident—originally an unconscious memory.

He was an apprentice in an engine-room. When on night duty he was frightened repeatedly by a blacksmith, who dressed up as a tramp with a long beard and slouch hat. On the first night he was so frightened that he took refuge between the shafts in the engine-room, and they had to stop the four engines to get him out.

On the following night the engineer tied him to a plank, on which he was lying asleep, and he was again frightened by the blacksmith.

After one or two nights of this, patient became desperate, and eventually seized a spanner and threw it at the blacksmith through a window and hit him on the top of the head. The blacksmith was in bed for three weeks from the injury.

This incident preyed on the patient's mind for two or three years.

In the course of this analysis it was a dream which the patient had which brought up the memory on the following day. He learnt from the other patients in the ward that he had shouted out in his sleep, "I will kill you with this spanner!" He could not recall the dream itself.

Aged 27: During a thunderstorm at night, while walking to a window to shut it, a lightning flash passed by him. He was dazed and both his arms were benumbed.

He cannot now go near a window during a thunderstorm.

A thunderstorm here at Maghull brought up the memory and the phobia.

Patient was first troubled with his heart in India in 1907, at the age of twenty-three, after an attack of malarial fever. He was very ill with his heart after that and was in hospital six weeks.

Aged 15: Had several terrifying experiences in connection with machinery. (M—— Coal Co.) Patient has always been of a worrying temperament. Since his marriage this has become intensified. His wife suffers from asthma.

He had to work very hard when quite young, when ten years old, because his father drank. In the summer holidays he worked from 3 a.m. till 8 p.m. in a market-garden.

Began engineering work at the age of fourteen years.

Apparently he has a kind of "athlete's heart."

Patient discharged in apparently normal condition after two months' psycho-analysis. He showed rapid improvement as the result of conversations in which the above facts became revealed. Prior to July 1915 he had received no *psycho-analytic* ("autognostic") treatment in hospital, and had remained stationary in health for weeks.

CASE III—Auditory Hallucinations of Speech with Consequent Delusions of Supervision.—Private B. S. R——, aged 31, 2nd South Staffs. Admitted August 6, 1915, with delusions of "supervision" by his family through telepathy. He heard the voices of members of his family upbraiding him, checking him when about to

do certain things, and telling him what to do. There were also delusions about other people, to be mentioned later. Patient was undersized, had lost weight, had pronounced wrinkles of perplexity and depression on his forehead, and was continually twisting his hair between his fingers while being spoken to.

History.—In 1910 he attempted suicide by cutting his throat, because of a big upset at home. He was a bank clerk, and had just come home from three months' holiday at Brighton—a holiday gained on the plea of ill-health. While at Brighton he had gone with a prostitute. This was his first and only offence of the kind, although for some years past he had smoked and drunk too much. After this holiday he was stationed at South Wales till October, 1910, when he returned home. Coming back in the train he was sick and vomited. When he reached home his family seemed to behave queerly towards him. Voices seemed to speak to him from the walls, imitating his brother's voice. While cleaning his teeth he heard words like "teeth," etc. coming from the wall. He was sent to a private asylum for some ten months, and then, after eight months in a colliery office in North Staffs, went to British Columbia. Here voices troubled him again, and he returned to England. At the outbreak of the war he enlisted in Kitchener's Army. When in France voices spoke to him while marching, saying "Give up!" and similar words. He was transferred to an office at the base, but continued to have the same feelings of supervision and to hear voices. He was therefore sent back to England.

* Used to wear elevators in his boots, and to hope

that no accident would occur when he was wearing them.

August 19th.—Heard voices all day yesterday. They comment on his thoughts and actions. It is impossible to please them. Their supervision is too strict and severe.

He always worried about being short (5 feet 4 inches). He was operated on for appendicitis at the age of eighteen. His parents used to come and try to cheer him up by saying that he would *grow* a great deal afterwards. The disappointment after this was, he thinks, too severe.

While at the private asylum he thought he recognized a piano-tuner, who used to tune the piano at home, as one of the inmates. He also heard his voice. This piano-tuner came from Brighton, and patient thought he was connected with the affair of the prostitute.

August 24th.—Voices continue and seem to answer his thoughts. E.g., when he starts taking his spectacles off, an imitation of the voice of one of his sisters says, "Take your spectacles off." The voice comes sometimes before, sometimes after, his decision has been made or his thought completed.

These voices, he thinks, belong to a secret society, a secret police. The piano-tuner was sent by them to the asylum to make an example of him. Patient has heard his voice continually since.

Before 1910 (about 1909), a younger sister with spinal curvation fell ill of scarlet fever and was very ill one night. The nurse had lost the needle of her hypodermic syringe, and patient brought down his own needle which he had bought some time before for photographic (*sic*!) work, as a mere whim. The sister died some months later. Patient

now worries that the voices might persecute his other sister (a nurse) over this.

He thinks the "secret police" employed the woman at Brighton to bring a young fool like him to book.

Voices repeat his thoughts, translate his thoughts into words.

Fellow patients here seem to change their appearance from day to day, and to resemble people he knows.

He thinks the voices are now supervising him because he never got his legal discharge from the previous private asylum where he was.

He went to British Columbia in 1912. While chopping wood there a voice (of the piano-tuner) said, "Be careful!" He was later deported as an undesirable. (Betrayed, he thinks now, by the Canadian doctor whom he consulted.) Patient thinks that the voices told the authorities and brought this about.

Referred to a pocket-dictionary meaning of *transubstantiation*.¹

September 15th.—Complains of Government super-

¹ While in his tent, in British Columbia, one night he began to shiver, and a voice (piano-tuner) said, "It is alcohol which produced it." Patient then commenced to go over his past life, in thought, and protested within himself that he had kept clear of alcohol and women for many years. The voice then said: "Simply say, 'Kathie come.'" Patient repeated these words, and then seemed to change in shape into the body of his dead sister Kathie (referred to in the text). Patient went to see the doctor next morning about this. The latter must have reported it to the authorities, who sent him to an asylum for a few days, and then shipped him to England. The word "transubstantiation" came up to his mind in this connection.

vision. The adjutant at Boulogne, where he was doing clerical work, spoke with the voice of his brother-in-law¹ and of his family doctor.

September 23rd.—Hears voices very rarely now. Has recently heard imitations of the voices of his eldest sister and of a patient in the private asylum, where he was previously. On one occasion, when he was thinking about something, his sister's voice seemed to say, "Of course it is," commenting on his thought. Patient now agrees that the voices are imaginary.

Patient thinks people can read his thoughts. Once the adjutant said, "Tut! tut!" in his brother-in-law's voice, in answer to his thoughts. The voices distract his thoughts and ruin his work.

The hearing of voices *began* after he returned from South Wales in the October of 1910. He was at Brighton in the preceding May, when he was led astray by the prostitute. Patient doesn't think he worried about the Brighton escapade during this interval, but tended to attribute the phenomena to it afterwards in order to get an explanation of them. He says, "It was that, or else his getting his holiday on apparently false pretences."²

October 5th.—Patient says that he no longer hears the voices, and that he wants to go out of hospital. The last distinct voice heard was on September 23rd.

¹ Brother-in-law is husband of patient's eldest sister—a doctor. Patient only hears his voice when supervision gets very intense. The doctor never upbraided him, and spoke always very rationally and tolerantly about his Brighton escapade and his attempted suicide.

Patient dreams very little, and can never remember his dreams.

² Patient was ordered three months' holiday from his bank work by the doctor, because of his ill-health. At that time

While watching the sunset, in the grounds, a voice—like the voice of his eldest sister—said, “Stay till finish.” “Neither need you.”

He never obeys the voices except when he choses to do the same thing on his own account.

October 10th.—No more voices. Patient has given up the idea of supervision. He is very much stronger and better in every way. His forehead is still rather wrinkled, but he is not so depressed.

November 11th.—Returned from one week’s pass, greatly improved in health. No voices.

December 8th.—No voices. Patient quite recovered. In good physical health. Patient asks, “What shall I do, sir, if the voices return?” He unreservedly accepts the explanation of his hallucinations and delusions which I have been giving him throughout the treatment (“*autognosis*”).

Voices come to patient from the *outside*, but are *not* localized by him. He explains this by saying that he always avoided attending to the voices as far as he possibly could, since they distracted him so.

Treatment.—The patient was treated by the *autog-nostic method* throughout. All his past memories and experiences were arranged and explained to him in their true light. It was explained to him that the voices really came from within, and were a *self-reproach* for the Brighton affair. [Thoughts of the voices now always bring up, and always have brought up, thoughts of this Brighton episode.]

When strongly under the influence of self-reproach

he was in poor health, nervous, depressed, and unequal to his work. His brother tells me that when a child he was somewhat reserved and different from the other boys. He was greatly upset by the death of his sister Kathie.

he attempted suicide, and then later the delusion of supervision became grafted on to the memory of this mad deed. Later on the various delusions began to show signs of systematization. By vigorous argument and persuasion week by week I succeeded in arresting this systematization process, and in explaining away the various voices and delusions.

PART V—MIND AND BRAIN

CHAPTER XI

RELATION OF MIND TO BRAIN : PSYCHICAL RESEARCH

It is well known that consciousness is related directly to only a very small part of the human organism—indeed, it is related directly to only a very small part of the brain, the cerebral cortex. At least, until quite recently it was considered that consciousness was related only to this very small part of the brain. Recently, however, Dr. Henry Head has brought forward evidence which tends to show that certain kinds of consciousness are related to certain of the so-called sub-cortical centres, masses of brain matter, cells and fibres, cells predominating, in the optic thalamus and the corpus striatum below the cortex. In any case, we can say that there is only a very small part indeed of the body that is directly related to consciousness.

And how is it related to consciousness ? Investigations in cerebral localization have shown us that sensory powers and motor powers are linked up with definite parts of the cortex. The occipital area—the part at the back of the head—mediates visual sensations ; consciousness involving sound is bound up with changes in the temporal cortex at the side of the head ; consciousness of cutaneous sensation is linked up with changes in the post-central convolution, etc. Further, these various

sensory centres are linked up with the sense-organs of the opposite side of the body. And similarly with the various movements. Voluntary initiation of movement seems to be linked up with definite systems of nerve cells in the pre-central convolution. The localization is very detailed there, and these centres are linked up with muscles on the opposite side of the body. For taste and smell sensations the localization is not so definitely determined. Feeling-tone and emotion are correlated with changes in the optic thalamus.

I. PSYCHO-PHYSICAL MATERIALISM.

Starting on this basis we have three possible theories of the relation of consciousness to the brain, and so eventually to the body. One theory is the theory of *psycho-physical materialism* or *automatism*. According to this theory the changes in the brain are the causes of different kinds of consciousness. A change which occurs in the occipital cortex causes visual sensation, a change which occurs in the temporal cortex causes auditory sensation, a change in the pre-central convolution causes consciousness of volitional movement, etc. The brain change comes first in every case, the change in consciousness comes second. There is a definite causal relation, always in one direction, from matter to mind or spirit. Consciousness, according to this theory, might be regarded as a sort of phosphorescence playing over the nerves of the brain. . . .

Many people in the last generation would have considered a theory like this the obvious theory, would have thought that it fitted in best with the facts of natural science which we had been able

to collect. As we study the evolution of the brain from lower organisms to higher, we find that it becomes more and more complicated, especially the cerebral cortex, and this would correspond to an evolution of consciousness. Consciousness is a sort of by-product of the development of cerebral activity. All activity is really physiological activity. There is no such thing as mental activity—this is an illusion. When we seem to be active, our cerebral cortex is active one way or other, and this produces in us a feeling of activity.

But, on this hypothesis, intellectual activity would be illusory, and consequently all the products of intellectual activity, one of which is this theory of psycho-physical materialism, would be illusory also, so that the theory is refuted by itself.

This should be a sufficient argument to dismiss psycho-physical materialism, but I should like to refer to one or two other arguments brought against it, because they come into our discussion of other parts of the subject. If we explain consciousness in terms of brain change we are also explaining intellectual processes, which are a part of consciousness, in this way. That is to say, we are explaining consciousness in terms of something which needs consciousness for its explanation. If you consider the theories of specialists in the various sciences, you will find that they all go back to the employment of certain concepts—to the formation and use of certain thought-systems—so that the structure of the various sciences is dependent on the nature and power of the intellect. But it is really an absurdity to try to explain the intellect in terms of that which needs the intellect for its explanation.

A third argument against this theory is an argu-

ment from the causal relation which it assumes. The theory postulates that brain process produces the various forms of consciousness, and yet this consciousness, when it is produced, has no further effect upon the brain—it is simply thrown off from the brain from moment to moment. These gleams of consciousness that are thrown off fade and make way for others. . . . Thus a sequence of mental changes are produced by physiological change, but when produced these do not go on to produce anything else. If, however, you consider the working of causation in any of the other sciences, you will find that every effect in its turn becomes a cause. If anything is produced by anything else, it in its turn becomes a cause producing something else. If I push this glass of water off the desk, my act is the cause, the effect is falling glass. This in its turn becomes a cause and produces a smashing noise, which is the effect of the fall, the noise produces some other effect, and so on—there is a continual chain of causation. But according to psycho-physical materialism this does not happen with consciousness. As soon as a conscious state is produced it disappears and is followed by another, produced by another physiological change.

II. PSYCHO-PHYSICAL PARALLELISM.

We come now to an attempt to get over these difficulties without giving up the belief in the efficacy of brain change and the importance of brain change in every phase and at every moment of conscious life. The theory of psycho-physical materialism does not need much elaboration to become a theory which seems more philosophical, viz. that of *psychog-*

physical parallelism. If we say that mental processes, instead of being produced by processes in the cortex, are merely additional properties of these processes, we seem to get over the causal difficulty. We may assert, for example, that change in the occipital cortex, instead of producing vision, is so complex that it carries with it as a part of its nature the consciousness of the object, that is to say, no change of that degree of complexity can occur in my occipital cortex without at the same time having as one of its properties the consciousness of a visual sensation—and so with other parts of the brain. Thus, if we represent consciousness by Greek letters and changes in the cortex by English letters, then, according to psycho-physical materialism, A produces α and also B, B produces β and also C, and so on; but α does not produce β , nor β , γ , etc. These are simply thrown off by the physiological activity. According to the theory of psycho-physical parallelism, on the other hand, A carries with it essentially and necessarily the further characteristic α , the psychological process. A- α is one entity, and can go on to produce B- β ; B- β goes on to produce C- γ , and so on. In that way you get over the difficulty of transeunt causation between the physical and the psychical. One does not cause the other—they are two sides of the same thing.

There are many difficulties in the way of this theory. One is that, whereas the physical part of the cerebral cortex is continuous with the rest of the body and so with the physical universe, the psychical side is limited. Only certain parts of the brain are connected with consciousness, yet the psychical is capable of representing the whole world—the world of art, literature, etc.; the part

mirrors the whole. You have linked up consciousness with a very small part of your own body, linked it up with it in a very intimate way by making it a property of certain physiological changes, and then you go on to say that consciousness is capable of knowing the whole world. This seems an exceedingly improbable theory, and one which we could hardly accept unless we were forced to do so by very convincing evidence.

An attempt has been made to make the theory more philosophical by making it a form of a general system of Idealism. According to this form of psycho-physical parallelism the reality is consciousness. These conscious processes constitute *the reality*. The brain processes with which they are linked up are not something additional, but are the way in which one consciousness appears to another. At the present moment you cannot look into my mind, but you could conceivably look into my brain. If my skull were opened and a special apparatus were invented by means of which my cerebral cortex became visible under a very powerful microscope, conceivably you could see my cerebral cortex working. Nevertheless, you would not be seeing what I see—you would not see my consciousness, say, of this light and this green lamp-shade, at which I am looking, you would simply see movements of molecules in my occipital cortex. There are not two things present, my consciousness and the changes in the cerebral cortex, but the former appears to you under the form of the latter. And so, according to this theory of psycho-physical idealism, the consciousness of any person is the reality of his cerebral cortex. But if this is so, what becomes of the reality of the rest of his brain and of the rest of his body ? Accord-

ing to this theory, the consciousness corresponding to that is a wider consciousness—it is the consciousness of the whole universe. The whole physical universe is in its reality mental, spiritual. It obeys certain laws, the Law of the Conservation of Energy, etc., and is differentiated into a number of centres—conscious individuals—within an All-inclusive Consciousness, which corresponds to the entire physical universe. The consciousness of men and animals are related to the Absolute Consciousness just in the same way as the cerebral cortex in man and in the animals is related to the rest of their body and to the rest of the physical world. This is the theory of *Psycho-physical Idealism*. It is more satisfying than parallelism, but it involves grave assumptions, and, in a way, wipes out all possibility of survival after death, for we know that the brain disintegrates at death, and, if consciousness is related to certain changes in the brain, we may assume that the individual consciousness comes to an end when the brain dies.

This theory is becoming more and more unsatisfactory, even to those who were once most enthusiastic in its support.

III. PSYCHO-PHYSICAL INTERACTIONISM.

We come next to the theory of *interaction*—a theory held by people of all nations at all stages of history. The mind is distinct from the brain ; the brain is the organ of the mind ; the two interact with one another. In our more passive states the brain acts on the mind ; in our more active aspects of consciousness it is the mind that acts on the brain. When I will to move my arm, my mind is

acting on the motor centre of my brain, producing a change there, and this is conducted down the nerve fibres to the muscles of my arm, and my arm moves. In the earlier form of the theory it was thought that all nerve fibres converged to one point in the brain, which was the seat of the soul. Descartes thought that the pineal gland, which was the only unpaired organ he knew of, was the seat of the soul. Later research has, of course, shown that there is no one point where all fibres meet, so that a soul cannot come into relation with a brain at any one point. Lotze got over this difficulty by saying that the soul is where it acts—in the occipital cortex, temporal cortex, and so on. . . .

This theory has not been very popular with philosophers, because it assumes interaction between two orders of existences that are so very different from one another, i.e. interaction between matter and mind. According to the ordinary views of the nature of matter and mind which have been handed down to us, matter is extended in space; mind, on the other hand, is not extended, is not in space; in fact, roughly speaking, we hold the view that: "What is mind? No matter! What is matter? Never mind!" We have so divided up the universe into matter and mind that the two are mutually exclusive. The one has just those properties which the other does not possess. But if you take that view of matter and mind you will have a very serious difficulty in bringing the two together at all, and if you believe that the one can act upon the other, and try to think this out, you will find it very difficult to do so. I will ask you to consider this question in the light of the ordinary views of mind and matter. Change in my occipital cortex can only be thought

of as a form of matter in motion. However advanced you may be as a physicist in your view of the nature of matter and of material change, you will find that you are thinking of something absolutely different from the visual sensation which the experiencing individual will have at the moment. However you envisage the changes in my cortex, as material they will be absolutely different from the consciousness I have, for instance, of this green lamp-shade. There seems to be no resemblance between the two, so that if you say that the one produces the other, you are saying something that may perhaps be accepted as a statement, but that cannot be thought out. If you consider the theories about the physical world in any of the sciences, you will find that the theories about any subject-matter are of such a nature that the mind can pass smoothly and easily from one thing to another. In Physics, for example, if you are considering any change that occurs, say the heat that is generated when a mass of metal is rubbed against another mass of metal (suppose I take a brass button and rub it on this desk—the button becomes hot), Physics will enable your mind to pass from the one phenomenon to the other quite easily and smoothly, for Physics says that matter is made up of small particles which oscillate about a mean position, and the heat of the button will correspond to the frequency or the amplitude of the oscillations. If you rub the button against the desk you increase the molecular motion and the particles vibrate at a greater rate or with greater amplitude. Thus the mind passes from one fact to the other, and can thus use the causal concept, for there are quantitative relations between cause and effect. But in a causal relation between physical

and psychical you have nothing of that sort. You have simply a sort of pre-established harmony. You cannot show that certain physical changes *must* produce certain mental changes.

Another objection to the theory is that the Principle of the Conservation of Energy is violated. According to this principle the sum-total of energy in the universe is constant whatever changes may occur in it. If, however, physical changes in the brain can act on the mind and produce mental changes, you will have loss of energy from the physical system, and again, at the moment of an exertion of the will, energy will pass from the mind into the brain. But it has been pointed out as regards this objection, that the principle is merely a generalization of a statement about finite and closed systems. What has been definitely proved is that if you take a finite and closed system, surrounded by non-conducting walls, then, if you assume changes to go on inside such a chamber, whatever the changes may be, you will find at the end, if you measure the total amount of energy inside, that the amount of energy will be the same as at the beginning, if no energy has passed in or out through the walls. If you generalize this, you simply get the result that all finite and closed systems obey the Principle of the Conservation of Energy. You can extend this result to the whole physical universe, if that is a finite and closed system. But, as Professor Ward has pointed out, we have no right to make the assumption that the whole physical universe is a finite and closed system, and, if it is not, this principle does not apply to the whole universe, and therefore does not invalidate our argument for psycho-physical interaction.

These are the two main arguments against psychophysical interaction, taking "matter" and "spirit" in their usual connotations. The arguments in favour of interaction are many.

One is the argument from the character of the unity of consciousness. Consciousness is a unity; on the other hand, the cerebral cortex, which is in direct relation with consciousness, is not by any manner of means a unity, and it is difficult to imagine the changes occurring in different parts of the cortex ever producing a consciousness which is a unity, or being the other aspect of a unitary consciousness. You can only explain the compounding of the multiplicity of changes in the different parts of the cortex if you believe in a unitary soul. (Lotze's argument.) Two forces can combine their results to produce a unitary result, but only if they meet at a point.

If you use what is called the parallelogram of forces as an illustration you need a point of psychophysical interaction, and this point is given you in the unity of the soul, although there is no unity on the physical side. (The parallelist, however, would say that there is a unity of the brain too. But we have to remember that only a small part of the brain is in direct relation to consciousness.)

Another argument for interaction is the argument from the biological principle of utility. Consciousness would only have evolved if it had been of use to the organism, for: Nothing has evolved which has not been of use to the organism; consciousness has evolved; therefore we may assume that consciousness has been of use to the organism, and we cannot conceive how this can be the case without the hypothesis of interaction. For, if consciousness

is only the other side of brain activity, it is difficult to see how it can have been of use. This is an objection to psycho-physical materialism, but not so much to psycho-physical parallelism. It is not an objection to psycho-physical idealism, because there the reality is the consciousness, only this has different degrees of intensity and has collected, as it were, around different centres of unity. Thus this argument from biological utility is not particularly helpful to psycho-physical interaction.

IV. BERGSON'S THEORY OF INTERACTION.

I come now to a different kind of theory altogether. Those which I have been describing are theories which have taken our ordinary concepts of matter and mind at their face value, and have tried to bring the two together. Bergson, an extremely acute thinker, has devoted an entire book (*Matter and Memory*) to this question of the relation of mind to brain, and has dealt with it in a new way. He has first asked himself the question, What exactly is matter and what is mind? Of course, philosophers had asked themselves that question before, but Bergson tries to start from a psychological point of view. He realizes that the basis of our knowledge of the material world is perception, and so he starts his inquiry by an investigation into the nature of perception and gives us a theory of perception before he passes on to the theory of the psycho-physical relation. Instead of accepting the view that the universe is neither coloured, nor sounding, nor having any of the characteristics of sense, and that the mind has all these characteristics, he holds the view that matter has all the properties

we see in it. The only difference between matter as we see it and matter as it is in itself is that we see only a small part—it is a difference of part and whole. The nervous system is built up of sensory and motor fibres with a view to réaction, to adaptation to environment, and the sense-organs play a part in that. They receive stimuli from outside and produce réaction. We see any particular object as it is, but we do not see all of it, we only see just those characteristics to which we can react. When I look at this lamp-shade I get certain visual sensations. I see that the shade is green; it has the tactile properties I should find if I stretched out and touched it. They are not produced through the interaction between the object and my mind, nor through the interaction between the changes in my cerebral cortex, aroused by the stimulus, and my mind. I see the object as it is, because my nervous system is so built that I am able to react to whatever comes within the scope of my vision. In what is called “pure” perception, which is a moment of experience, the nervous system serves to put us in direct relationship with any particular object we are perceiving. We see in the object itself just that part of it to which we can react, so that pure perception is virtually action—it is the reflection, as it were, of the object in ourselves, the reflection of our power of action upon the object. The object possesses many other characteristics, but our body is not developed enough to enable us to react to them, and so we are not aware of them. Changes are not first produced by the object in our organs of sense and then brought to the cerebral cortex, where further changes produce awareness of the object, but our mind is in direct relation

with the object through a physical system. It is not that the cortical system acts on our mind and produces consciousness of the object (that is the theory of representation). When we see the object we do not see it through a veil of representation, we see it *as it is*. But, Bergson says, in ordinary perception we have something more than pure perception. Pure perception is a moment of experience, but actually perception takes some time at least, for what happens is that memory comes into play and we summate a number of rapidly successive views of the object in our consciousness. Memory is of the nature of spirit; perception in itself is physical¹—it is simply a physical way of bringing physical bodies into relation with my body and so with my mind—but memories are a part of the mind itself. In ordinary perception memory comes into play, so that one gets more than perception—one gets a sort of cinematograph summation of instantaneous views of the object. Thus what science proves to us to be rapid vibrations seem to us to be, say, a colour. This lamp-shade seems to me to be green because my memory has summated a whole number of rapid vibrations which physical science proves constitute the colour. If my mind could be so slowed down that it could count the successive vibrations, I should see the shade as a series of vibrations, which is more like what the physicist says it is. This summation of vibrations results

¹ But pure perception is also *conscious* perception, because of the *indetermination* involved in perceptual reaction to the environment, as compared with the fixed and inevitable response which occurs in spinal reflex action. Its consciousness is a measure of freedom of choice of alternative modes of motor response.

from the action of memory. Theoretically, however, pure perception is absolutely distinct from memory. "Pure" memory is absolutely unconscious. What we call memories are memories on their way to perception. In all the parts of our consciousness, so far as they are conscious, earlier memories come in and find a connection with the same motor system which is a continuation of our present perception. Our present perception is a continuous process, passing over into physical reaction to the object. Our conscious life is a result of the working of that perception, together with unconscious memories which insert themselves into the series of motor reactions which serve for our perceptual activity. Those memories come to the surface at any moment which fit in with the motor prolongation of our present perceptual experience. According to this theory *the brain is merely a motor organ*. It has sensory centres as well as motor centres, but they are all linked up with the physical environment, and the mind is something distinct but not different from the brain. The reason why the two—matter and mind—seem so different and why it is so difficult to relate them to one another is that we have not done full justice to either. Matter, we have said, is extended in space. It has no intensity, no energy, but is quantitative only. We have given all the other, qualitative, properties to mind. The same qualities, Bergson says, are in both. You can bridge the gap between the quantity of matter and the quality of mind if you adopt the theory of a difference of tension, of rhythm or rate of moving, between matter and mind. Our minds move at a certain rhythm, a rhythm which condenses thousands of millions of vibrations into a single moment, and

this is why in a single psychological moment we see colour instead of seeing vibrations. Bergson says that both we and the physicist are right, and if we could slow down our mental process, so that the vibrations were separate one from another, we should see them as vibrations. The colour would gradually become more and more "diluted," though it would never disappear completely. There is a transition between the objects of physical science and psychical sensations—the difference is a difference of degree, not of kind. "Pure" memory is not directly related to the brain; there are no memory centres in the brain. Bergson has various arguments to bring forward in support of this contention: Firstly, if we believe that memory is lodged in the brain, the theory we should hold would be that perceptions, when they occur, leave traces in the brain which, when re-excited, produce corresponding memories. But he points out, as psychologists have noticed again and again, that the power of perception in a certain sphere can be lost though the corresponding memories remain, and the power of memory can be lost while the perceptions remain. Again, he points out the great distinction of pure memory from rote memory, which he identifies with habit. In learning a lesson by heart, we build up a motor mechanism having all the marks of a habit.

"Like a habit, it is acquired by the repetition of the same effort. Like a habit, it demands first a decomposition and then a recomposition of the whole action. Lastly, like every habitual bodily exercise, it is stored up in a mechanism which is set in motion as a whole by an initial impulse, in a closed system of automatic movements which

succeed each other in the same order and, together, take the same length of time. The memory of each several reading, on the contrary, the second or the third for instance, has *none* of the marks of a habit. Its image was necessarily imprinted at once on the memory, since the other readings form, by their very definition, other recollections. It is like an event in my life: its essence is to bear a date, and consequently to be unable to occur again." (*Matter and Memory*, pp. 89, 90.)

This distinction is absolutely essential for Bergson's theory of memory. Corresponding to it he finds two distinct kinds of recognition, one entirely mechanical, based on the working of pre-formed motor mechanisms, the other starting from memories, among which the mind places itself by an act *sui generis*, at a bound, and working back to the perceptual and motor plane of the present. Cases of "mental blindness," or loss of the power of recognition, whether visual or auditory, are not due to a real loss of the corresponding memories, but to injury or obstruction of the motor mechanisms which give these memories the opportunity of being realized as supplementary parts of an actual perception. The facts of psycho-pathology, especially those of *aphasia* in all its forms, seem to support this view.

Bergson's view, then, is that memory is spirit, and that all our memories remain in our mind from the earliest times, as a series in time, although in a condition of complete interpenetration, the characteristic of each memory being its particular date—it occurs at one moment and not at another, and those we use come up because of their relationship to our present needs. There is no such thing as a real loss of memory resulting from brain lesion;

a pathological change in the brain simply prevents the memories from actualizing themselves. Memories are unconscious, but if the motor mechanism of the brain is excited they may come to the mind as conscious memory. If the mechanism is out of order, then the memories cannot come to the surface. This does not mean that they are lost, but simply that they are in abeyance—they are there from the beginning of time.

V. HYPNOTISM AND PSYCHICAL RESEARCH: SURVIVAL OF BODILY DEATH.

I come now to a number of facts which seem to bear out his theory that memory is there from the earliest times. It has recently been observed in a large number of cases of loss of memory following on shock that these memories can be brought back quickly and completely by the use of hypnosis. If we go further and put the patient into a deep hypnotic state, we can bring up memories from any part of his life, if he is a satisfactory subject. We can make him go back to his various birthdays, which were definite moments in his life. We can make him go back as early as his first year, and can get him to go back again and again and find that the same memories come up on successive occasions.

The question may now be asked, how far definite facts of this kind throw light upon the survival of the mind after the death of the body. If we accepted the theories of psycho-physical parallelism or of automatism we should be inclined to put aside all evidence for continued existence of the mind as fallacious. But if we adopt the theory of psycho-physical interaction, at any rate the door is left

open to us and we feel that there is nothing on that side to hinder us, as long as our facts are reliable and are gained in a reliable way. Of course, for a long time now the Society for Psychical Research and people working independently of that Society have been bringing forward fact after fact, system after system, in favour of the continued existence of mind after death. I would call your attention to that system of "cross-correspondence" that was thought to be observed many years ago in regard to messages supposed to be coming from discarnate intelligences to human organisms. The difficulty of demonstrating the mental origin of such messages is due to the existence of the alternative theory of telepathy. Telepathy is the power that one mind has of acting upon another mind otherwise than through the medium of the senses. Many people have denied the existence of telepathy. It does not always occur when it is expected or hoped for, and you have to take each case on its own merits; but if you do that you find that there is an enormous mass of evidence for telepathy—one incarnate mind acting on another incarnate mind. In hypnosis telepathy is increased, and quite astounding results are sometimes obtained. But this theory may be used to explain a great deal that might previously have been explained in terms of the action of outside spirits upon the body. This system of cross-correspondence, for instance, was thought to have been devised by F. W. H. Myers after his death to give evidence to which the argument of telepathy would not apply.. It was given to people in two different parts of the world. Mutilated messages were coming through to Mrs. Holland in India, whilst a lady in Cambridge was also getting

mutilated messages, and it was found that when put together these messages made definite sense, and seemed to be a message coming from (I believe) F. W. H. Myers—at any rate from some one who had passed over. This method seems to be admirably adapted to prove the existence of outside intelligences without telepathy coming into play, as neither of the people in question had any knowledge of the real message, so that one could not have passed it on to the other by telepathy. The criticism one could bring against this is, firstly, that there might be some third person living who was thinking some message, different parts of which might go to two different people. This objection, of course, is rather trivial. Another objection is that one can easily over-estimate the coherence of these messages. They seem to fit together, but what they actually state is not very much, and it may be by mere chance that two such mutilated messages when brought together seem to make sense. If you take any two mutilated messages and bring them together you will find that they make more sense than each one does by itself. This is the sort of objection that would carry some weight.

The facts, however, are innumerable, and these facts claim to prove the continued existence of mind after death. What I wish to do is to emphasize the truth that many facts of this kind can be explained in other ways. You have to be prepared to discount such facts in the light of pathological psychology. If, for instance, you hypnotize a good patient, and then suggest to him that he will see something that is going on a long way off, you will find that he will seem to see what is happening, say, at home. He will see it as a dream, perhaps, but the

peculiarity of the dream will be that it goes on at the ordinary rate of experience (not very rapidly, as we conceive our dreams to do). He will see, say, his wife at the wash-tub, sewing, in the kitchen—will see her sit down and write a letter, and he will be able to read the letter she has written. He will be able to go about from room to room of the house and will seem to see everything, and at the end, when he wakes up, he will say that he is quite certain that he has been at home. You can do that with dozens of patients. You might say that it is just a matter of telepathy. If it is telepathy, we should presume that there was telepathy between the individual and, say, his wife; but you must note that he also sees things going on in other parts of the house, where his wife is not, and this might lead you to make the further hypothesis that it is an external spirit which helps the individual to see what is going on.

But it must be noted that these results do not always correspond with what is actually taking place. Now and then one does get coincidences, but in quite a large number of cases one finds that what the patient sees is something which has not happened at all, something which could not have been happening at that time, and which has no relation to anything that the person thought about was doing, or might have been doing. One feels forced to believe that, in most of the instances, the patient's mind has become so suggestible that the thought, say, of home brings up automatically certain characteristics of his home, and then the mind improvises as it goes along, and goes along at a definite rate. If one finds certain correspondences afterwards, if these are few and are not characterized

by any special incident, they must be held to be contradicted by the other facts which do not correspond. Note the proviso, however, for it is very important. You may find that when the patient sees what actually does occur he is in a much more excited state and feels much more convinced of the genuineness of his experience than when he does not see what actually occurs. This should be noted if it occurs. As far as I can discover, there is not much evidence of this kind. Taking all these cases as on the same level, one may say that they are simply false percepts due to suggestion.

Such facts at any rate show how careful we need to be, for, after all, a lot of the work of mediums is simply the result of what seems to come to them automatically, either by word of mouth or through automatic writing, and it is quite conceivable that the medium may be in a state where suggestion works automatically and where the mind improvises. Automatic writing, for instance, will often bring up memories from earlier life that cannot be restored in other ways. Dr. Morton Prince has described the case of a girl who was very frightened of cats. He hypnotized her very deeply in order to try to get back the original memory which would explain why she feared cats, but he failed to do so. But when he put a pencil into her hand, the hand automatically wrote a detailed account of a fright she had had as a young child, when a white kitten had had a fit in her arms. Such cases are common in this rather shadowy land of the occult. We can bring back memories from the earlier life of a hypnotized subject, and such memories are often extremely accurate and seem to bear out Bergson's view. But other memories are not so accurate. I remember

one patient I had who described his christening with great detail. The padre, however, made independent inquiries and had the register looked up, and it was found that he had been christened much later than he thought (*viz.* when he was two or three years old, and not when he was six months old, as he declared), so that this particular bit of evidence fell to the ground. It was simply imagination. Again, one of my patients was supposed to see some one related to me, when he was in a hypnotic trance. He gave me a very circumstantial account of the scene—he could see them on the pier at Brighton—could see this, that and the other. My corporal took down the account. I knew, however, that it was not true, and later on it came out that it was a memory of a time the patient himself had once spent at Brighton. You will find instances of this sort occurring again and again.

In mentioning these facts I do not want to cast any doubt on the results of scientific investigations into spiritism—I have no right to do that—I merely wish to sound a note of caution, to suggest that all this borders very closely on the realm of pathological psychology, and that in such investigations you need to be quite sure that the mind concerned is a normal one—and for this you need to make investigations of other kinds. I do not say that all mediums are pathological cases, but in any case it is obvious that the medium should be investigated from that point of view, and that people who are not educated in pathological psychology are not likely to be such reliable witnesses as people who have made investigations along this line. You really need, it seems to me, to have stored in your minds a lot of facts of pathological psychology, so

that you can discount any possibility of this kind. But when one reads the literature relating to these facts, however anxious one is to be convinced of the evidence for continued existence—and no one could be more anxious for this than I am—one feels that one can never be quite convinced unless one can see the case for oneself, for one does not find sufficient details to be quite sure that the states described are not simply pathological mental states rather than something that is completely normal.

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